UTAH OIL AND GAS CONSERVATION COMMISSION

REMARKS: * Information obtained from UOA 10-6-58

Logs Confidential until 3-12-59 * RE-ENTRY. "Horizontal Drl"
* 11-1-94 GR Neutron
12-1-83 Operator Name Change.
931006 Phillips to MEPNA eff. 7-1-93: 950803 OPER Name from "MEPNA"
**950830 Commenced In eff. 7-14-95

(Have File) Well Log & 3 Electronic Logs

DATE FILED	6-2-58 * 7-19-94		Nav-14-20-
LAND: FEE & PATENTED	STATE LEASE NO.	PUBLIC LEASE NO.	INDIAN 603-353
DRILLING APPROVED:	6-2-58 * 7-28-94		
SPUDDED IN:	7-24-58 * 8-1-94		
COMPLETED:	8-21-58 * 9-27-94 POW		
INITIAL PRODUCTION:	193 BOPD; 3 BWPD * 224 BOPD; 124 MCF; 33 BWPD		
GRAVITY A. P. I.	41°		
GOR:	* 554		
PRODUCING ZONES:	5615' - 5758' (Ismay) * 5620-5768 (DSCR)		
TOTAL DEPTH:	5825' * 6400' / 5825'		
WELL ELEVATION:	4854 GR - 4867' DF * 4858 GR		
DATE ABANDONED:			
FIELD OR DISTRICT:	~~Ratherford~~ Greth		
COUNTY:	San Juan		
WELL NO.	DESERT A-10 (Ratherford 20-14)		API 43-037-15747
LOCATION:	660 FT. FROM (N) (S) LINE, 660 FT. FROM (E) (W) LINE. SW¼ SW¼ QUARTER - QUARTER SEC. 20		
* BHL:	1080' FNL 436' FEL		13 MOBIL EXPLOR & PROD MEPNA

TWP.	RGE.	SEC.	OPERATOR	TWP.	RGE.	SEC.	OPERATOR

GEOLOGIC TOPS:

QUATERNARY	Star Point	Sinbad	Brazer
Recent	Wahweap	PERMIAN	Pilot shale
Alluvium	Masuk	Kaibab	Madison
Lake beds	Colorado	Coconino	Leadville
Pleistocene	Mancos	Cutler - Upper - 2583'	Redwall
Lake beds	Upper	Hoskinnini	DEVONIAN
TERTIARY	Middle	DeChelly 2692'	Upper
Pliocene	Lower	White Rim	Middle
Humboldt	Emery	Organ Rock 2885'	Lower
Salt Lake	Blue Gate	Cedar Mesa	Ouray
Miocene	Ferron	Halgaite tongue	Elbert
Bishop conglomerate	Frontier	Phosphoris	Guilmette
Oligocene	Dakota	Park City	Simonson dolomite
Norwood	Burro Canyon	Rico (Goodridge)	Sevy dolomite
Eocene	Cedar Mountain	Supai	North Point
Duchesne River	Buckhorn	Bird Springs	SILURIAN
Uinta	JURASSIC	CARBONIFEROUS	Laketown dolomite
Bridger	Morrison	Pennsylvanian	ORDOVICIAN
Green River	Salt Wash	Oquirrh	Eureka quartzite
Upper	San Rafeal Gr.	Weber	Pogonip limestone
Middle	Summerville	Morgan	CAMBRIAN
Lower	Bluff sandstone	Hermosa E 4610	Lynch
Wasatch	Curtis	Upper	Bowman
Colton	Entrade	Lower	Tapeats
Flagstaff	Moab tongue	Molas	Ophir
Almy	Carmel	Paradox 5605' to TD	Tintic
Paleocene	Glen Canyon Gr.	A	PRE-CAMBRIAN
Current Creek	Navajo	B	
North Horn	Kayento	C	
CRETACEOUS	Wingate	Manning Canyon	
Montana	TRIASSIC	Mississippian	
Mesaverde	Chinle 1555'	Chainman shale	
Price River	Shinarump 2400'	Humbug	
Blackhawk	Moenkapi 2432'	Joana limestone	

Form 9-331 b
(April 1952)

Budget Bureau No. 42-R359.4.
Approval expires 12-31-60.

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Indian Agency Navajo

Allottee Tribal

Lease No. 14-20-603-353

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL	X	SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO REDRILL OR REPAIR WELL		SUBSEQUENT REPORT OF REDRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

Denver, Colorado May 28, 1958

Well No. Desert "A" 10 is located 660 ft. from {S} line and 660 ft. from {W} line of sec. 20

Sw/4 Sw/4 Section 20	41S	24E	S.L.M.
(¼ Sec. and Sec. No.)	(Twp.)	(Range)	(Meridian)

Ratherford	San Juan	Utah
(Field)	(County or Subdivision)	(State or Territory)

The elevation of the ground above sea level is 4854 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Drill 17½" hole to approximately 150', set 150' of 13-3/8" conductor pipe and cement to surface. Drill 11" hole to approximately 1500', set 8-5/8" casing and cement to surface. Drill 7-7/8" hole to total depth of approximately 5850', run 5½" casing and cement with approximately 250 sacks. Complete in Paradox formation.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Phillips Petroleum Co.

Address 1200 Denver Club Bldg.

Denver 2, Colorado

By W. M. Schul

Title Division Supt.

U. S. GOVERNMENT PRINTING OFFICE 16—8437b-8

Company PHILLIPS PETROLEUM COMPANY

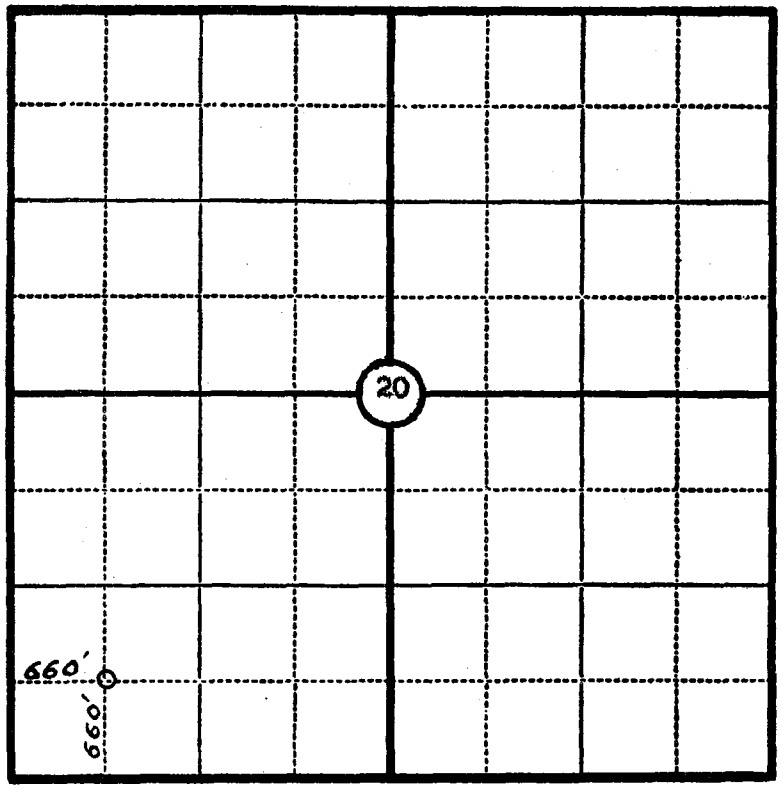
Lease DESERT "A" Well No. 10

Sec. 20, T. 41 SOUTH, R. 24 EAST S.L.M.

Location 660' FROM THE SOUTH LINE AND 660' FROM THE WEST LINE.

Elevation 4854.0 UNGRADED GROUND

SAN JUAN COUNTY UTAH



Scale—4 inches equal 1 mile.

This is to certify that the above plat was prepared from field notes of actual surveys made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.

James P. Leese

Seal:

Registered Land Surveyor.
JAMES P. LEESE
UTAH REG. NO. 1472

Surveyed 27 DECEMBER, 1957

14

SAN JUAN ENGINEERING COMPANY, FARMINGTON, N. M.

Cleon B. Feight

In disputed area - In
Conflict w/ Contaminants "B" 8

June 3, 1958

Phillips Petroleum Company
1200 Denver Club Building
Denver 2, Colorado

Attention: W. M. Schul, Division Superintendent

Gentlemen:

This is to acknowledge receipt of your notice of intention to drill Well No. Desert A-10, which is to be located 660 feet from the south line and 660 feet from the west line of Section 20, Township 41 South, Range 24 East, SLBM, San Juan County, Utah.

The above notice of intention to drill creates somewhat of a problem now that the Commission is cognizant of the fact that there is a dispute to the ownership of the oil and gas rights in this area.

Therefore, if it will not result in any undue hardship, the Commission would like to forego approving or disapproving this notice of intention to drill until such time as it has had the opportunity to take up the matter of Continental Oil Company's application for pooling the acreage upon which this well is to be located.

This matter will be decided on June 13, 1958.

Yours very truly,

OIL & GAS CONSERVATION COMMISSION

CLEON B. FEIGHT
SECRETARY

CBF:en

cc: Phil McGrath
USGS, Farmington,
New Mexico

12

PHILLIPS PETROLEUM COMPANY

1200 Denver Club Building
Denver 2, Colorado

June 9, 1958

In Re: Notice of Intention to Drill
Phillips - Aztec Desert A-10

Utah Oil & Gas Conservation Commission
State Capitol Building
Salt Lake City, Utah

Attention: Mr. Cleon B. Feight

Dear Sir:

This will acknowledge receipt of your June 3, 1958, letter relative to the above subject. We appreciate the fact that under the circumstances the notice of intention to drill well No. Desert A-10 creates something of a problem for the Commission. Inasmuch as it appears that the U.S.G.S. will keep off-setting wells on a shutdown status pending some form of settlement of the alleged dispute to the ownership of oil and gas rights in the area we cannot see that the delay in approval of this notice of intention to drill will work any hardship on Phillips Petroleum Company.

We appreciate your prompt attention to this matter.

Yours very truly

PHILLIPS PETROLEUM COMPANY

W. M. Schul
Division Superintendent

SS:lb

CC: Mr. L. E. Fitzjarrald
Mr. P. T. McGrath

C
O
P
Y

DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
P. O. BOX 965
Farmington, New Mexico

July 3, 1958

Phillips Petroleum Company
1200 Denver Club Building
Denver 2, Colorado

Subject: Navajo Tribal 14-20-603-353

Gentlemen:

Receipt is acknowledged of your Notice of Intention to Drill dated May 28, 1958, covering your Well No. 10 Desert "A" - SW 1/4 SW 1/4 Sec. 20, T. 41 S., R. 24 E., S.L.M., San Juan County, Utah, Ratherford Pool. Your proposed work is hereby approved subject to the following conditions:

> As the well location is 36.3 feet N. of land claimed by Continental Oil Company to be included in their Lease 14-20-603-407, drilling is approved subject to communitization of the applicable well spacing unit (W 1/2 SW 1/4 or SW 1/4 SW 1/4, Sec. 20, T. 41 S., R. 24 E., S.L.M.), if final adjudication of the lease boundary dispute results in diverse ownership in said unit. Said communitization shall be effective after the date of this approval.

Very truly yours,

/s/ T. T. McGrath

District Engineer

C
O
P
Y

EDWIN W. SENIOR
(1901—1925)

CLAIR M. SENIOR
RAYMOND T. SENIOR

FRANCIS M. GIBBONS
EDWARD M. BOWN
KLINE D. STRONG

SENIOR & SENIOR
ATTORNEYS AT LAW
10 EXCHANGE PLACE
SALT LAKE CITY

July 29, 1958

Mr. Cleon B. Feight, Secretary
Oil and Gas Conservation Commission
140 State Capitol Building
Salt Lake City, Utah

RE: Phillips Petroleum Company.
Notice of Intention to Drill
Desert No. A-10 and Desert
No. A-16.

Dear Mr. Feight:

Phillips Petroleum Company heretofore filed in your office its Notice of Intention to Drill Well No. Desert A-10 at a normal location in the SW¼SW¼, Section 20, T. 41 S., R. 24 E., SLM, San Juan County, Utah. This Notice was referred to in your letter of June 3, 1958 addressed to Phillips.

By letter of July 3, 1958, a copy of which is enclosed, the District Engineer of the U.S.G.S. at Farmington, New Mexico, approved the Notice of Intention to Drill said well, which Notice had been filed with that office. Such approval was subject to the condition stated in said letter. Phillips is entirely willing that approval by your office of the similar Notice filed in your office be subject to like conditions.

During your absence from the city and on July 18, 1958, I discussed this matter with Commissioner Edward W. Clyde and explained these facts and further explained that Phillips had a rig standing by, ready to move on this location. He stated that approval would be given subject to the condition referred to above, and the drilling is now in progress. It is, therefore, requested that your formal approval be dated as of July 18, 1958.

If there has not already been filed in your office, there will, within a few days, be filed in your office Phillips' Notice of Intention to Drill Well No. Desert A-16 at a normal location on the SW¼SE¼ of Section 20, T. 41 S., R. 24 E., SLM. The situation as to the conflict in lease boundary claims between Phillips and Continental Oil Company is the same in respect to the A-16 location as that which is listed in respect to the A-10 location. Phillips is willing that the approval as to the A-16 location shall be subject to the same condition as above mentioned with respect to the A-10 location. It is the purpose of Phillips

to move the rig from the A-10 location to the A-16 location as soon as the present drilling is completed and early approval as to the A-16 Notice is, therefore, requested.

This letter is in confirmation of our telephone discussion of yesterday.

Very truly yours,

Clair M. Senior, on behalf of
Phillips Petroleum Company

cms ys
encl

cc (w/o encl):

Mr. R. M. Williams
Phillips Petroleum Company
Bartlesville, Oklahoma

July 30, 1958

Phillips Petroleum Company
Bartlesville,
Oklahoma

Attention: Mr. R. W. Williams

Re: Phillips Petroleum Company-
Well No. Desert A-10, Sec. 20,
Twp. 41 South, Rge. 24 East,
SLBM, San Juan County, Utah.

Gentlemen:

With reference to Mr. Senior's letter of July 29, 1958, please be advised that approval to drill the above mentioned well is granted as of July 18, 1958, subject to the following conditions:

> As the well location is 36.3 feet N. of land claimed by Continental Oil Company to be included in their Lease 14-20-603-407, drilling is approved subject to communitization of the applicable well spacing unit ($W\frac{1}{2}$ $SW\frac{1}{4}$ or $SW\frac{1}{4}$ $SW\frac{1}{4}$, Sec. 20, T. 41 S, R. 24 E, SLBM), if final adjudication of the lease boundary dispute results in diverse ownership in said unit. Said Communitization shall be effective after the date of this approval.

Yours very truly,

OIL & GAS CONSERVATION COMMISSION

CLEON B. FEIGHT
SECRETARY

CBF:en

cc: Clair M. Senior, Atty
10 Exchange Place
Salt Lake City, Utah

W. M. Schul, Div. Supt.
Phillips Petroleum Co.
Denver 2, Colorado

P. T. McGrath, Dist. Eng.
USGS, Farmington,
New Mexico

Form 9-331 b
(April 1952)

Budget Bureau No. 42-R359.4.
Approval expires 12-31-60.

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Indian Agency Navajo

Allottee Tribal

Lease No. 14-20-603-353

N-K

8-19

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	X
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO REDRILL OR REPAIR WELL		SUBSEQUENT REPORT OF REDRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

Cortez, Colorado August 13, 1958

Desert "A"
Well No. 10 is located 660 ft. from {N/S} line and 660 ft. from {E/W} line of sec. 20

SW/4, SW/4, Section 20 (¼ Sec. and Sec. No.) 41S (Twp.) 24E (Range) SLM (Meridian)

Ratherford (Field) San Juan (County or Subdivision) Utah (State or Territory)

The elevation of the Ground floor above sea level is 4854 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Spudded 11 PM 7-24-58. Drilled 12-1/4" hole and reamed 17-1/2" hole to 171'. Set and cemented 13-3/8" casing at 170.25' with 175 sx. cement. Pumped plug to 140' and 8:15 PM 7-26-58. Cement Circulated. Tested Casing OK with 500# for 30 Minutes.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Phillips Petroleum Company

Address Box 548

Cortez, Colorado

By F. W. Shelton
F. W. Shelton

Title Superintendent

U. S. GOVERNMENT PRINTING OFFICE 16—8437b-8

Form 9-331 b
(April 1952)

Budget Bureau No. 42-R359.4.
Approval expires 12-31-60.

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Indian Agency Navajo

Allottee Tribal

Lease No. 14-20-603-353

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	X
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO REDRILL OR REPAIR WELL		SUBSEQUENT REPORT OF REDRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

Cortez, Colorado August 18, 1958

Desert "A"

Well No. 10 is located 660 ft. from {N/S} line and 660 ft. from {E/W} line of sec. 20

SW SW Sec.20 (¼ Sec. and Sec. No.) 41S (Twp.) 24 E (Range) SLM (Meridian)

Ratherford (Field) San Juan (County or Subdivision) Utah (State or Territory)

The elevation of the derrick floor above sea level is Ungraded Ground 4854 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Drilled 11" hole to 1565' in sand & shale. Set & cemented 8-5/8" casing at 1563.53' RKB w/ 800 cu.ft. of 12.4#/gal.20% Diesel "D", 2% calcium Chloride, 1/2# sx. floceal, 2# tuff plug, followed w/ 150 cu. ft. of neat reg. cem. on bottom. Pumped plug to 1531' at 11:45 PM 7-30-58. Circulated 100 cu. ft. of mixture, waited 45 Min. recemented to surface w/ 10 sx. Tested casing w/ 750# for 30 Min. - OK

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Phillips Petroleum Co.

Address Box 548

Cortez, Colorado

By F. W. Shelton

Title Supt.

U. S. GOVERNMENT PRINTING OFFICE 16—8437b-8

Form 9-330

Budget Bureau No. 42-R355.4.
Approval expires 12-31-60.

U. S. LAND OFFICE Navajo
SERIAL NUMBER 14-20-603-353
LEASE OR PERMIT TO PROSPECT Tribal

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

LOCATE WELL CORRECTLY

Company Phillips Petroleum Co Address P.O. Box 548, Cortez, Colorado

Lessor or Tract Desert "A" Field Ratherford State Utah

Well No. 10 Sec. 20 T. 41S R. 24E Meridian SLM County San Juan

Location 660 ft. {N./S.} of S Line and 660 ft. {E./W.} of W Line of Sec. 20 Elevation 4867
(Derrick floor relative to sea level)

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.

Signed [signature]

Date October 30, 1958 Title District Superintendent

The summary on this page is for the condition of the well at above date.

Commenced drilling July 24, 1958 Finished drilling August 21, 1958

OIL OR GAS SANDS OR ZONES

(*Denote gas by G*)

No. 1, from 5615 to 5758 No. 4, from ____ to ____

No. 2, from ____ to ____ No. 5, from ____ to ____

No. 3, from ____ to ____ No. 6, from ____ to ____

IMPORTANT WATER SANDS

No. 1, from Water shows in all sands from surface to 1555 No. 3, from ____ to ____

No. 2, from ____ to ____ No. 4, from ____ to ____

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated From—	Perforated To—	Purpose
13-3/8	27.1	SMSJ	Armco	162	Baker		5615	5658	Oil Prod
8-5/8	24	8 rd	J-55	1577	"		5662	5680	" "
5 1/2	15.5	8 rd	J-55	174	"		5752	5758	" "
5-1/2	14#	8 rd	J-55	5704					

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
13-3/8"	170'	175	Circ		
8-5/8"	1564	600 cu ft	Circ (10 sx added down annulus)		
5-1/2	5825	550 cu ft	Halliburton		

PLUGS AND ADAPTERS

Heaving plug—Material ____ Length ____ Depth set ____

FOLD MARK

Adapters—Material ..... Size .....

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out

TOOLS USED

Rotary tools were used from 0 feet to 5825 feet, and from ..... feet to ..... feet

Cable tools were used from ..... feet to ..... feet, and from ..... feet to ..... feet

DATES

October 30, 19 58 Put to producing August 27, 1958

The production for the first 24 hours was 196 barrels of fluid of which 98½% was oil; .....% emulsion; 1½% water; and .....% sediment. Gravity, °Bé. 41

If gas well, cu. ft. per 24 hours ..... Gallons gasoline per 1,000 cu. ft. of gas .....

Rock pressure, lbs. per sq. in. 250 //

EMPLOYEES

Moran Bros, Inc., Driller ....., Driller

....., Driller ....., Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
1555	2400	845	Chinle
2400	2432	32	Shinarump
2432	2533	101	Moenkopi
2533	2692	159	Upper Cutler
2692	2885	193	De Chelly
2885	4610	1725	Organ Rock
4610	5605	995	Hermosa
5605	5825	220	Paradox
5793	----	----------	PBTD Top cem. plug

[OVER]

16—43094-4

16—43094-2 U. S. GOVERNMENT PRINTING OFFICE

HISTORY OF OIL OR GAS WELL

It is of the greatest importance to have a complete history of the well. Please state in detail the dates of redrilling, together with the reasons for the work and its results. If there were any changes made in the casing, state fully, and if any casing was "sidetracked" or left in the well, give its size and location. If the well has been dynamited, give date, size, position, and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position, and results of pumping or bailing.

Spudded 11 PM 7-24-58. Drilled 12-1/4" hole and reamed 17-1/2" hole to 171'. Set and cemented 13-3/8" casing at 170.25' with 175 sx. cement. Pumped plug to 140' at 8:15 PM 7-26-58. Cement circulated. Tested casing o.k. with 500# for 30 minutes.
Drilled 11" hole to 1565' in sand and shale. Set and cemented 8-5/8" casing at 1563.53' RKB w/800 cu.ft. of 12.4#/gal. 20% diacel "D", 2% calcium chloride. 1/2# sx. flocoal. 2# tuff plug, followed w/150 cu.ft. of neat reg. cement on bottom. Pumped plug to 1531' at 11:45 PM 7-30-58. Circulated 100 cu. ft. of mixture, waited 45 min. recemented to surface w/10 sx. Tested casing w/750# for 30 min. - o.k.
Drilled 7-7/8" hole to 5824' Drlrs. Meas. at 8 AM 8-21-58. Ran Schlumberger Electric-Induction and Micro Log to 5822'. Set and cemented 179 jts. 5½"OD 15.5# & 14# J-55 ST&C A Cond. Casing at 5825.08' RKB with 132 sx Neat Cement, 100 sx Diacel "D", 496# calcium chloride. Pumped plug to 5794' at 6:55 AM 8822-58. WOC 24 hrs. Tested casing at 750# for 30 mins. Tested o.k.
Ran Welex Gamma Ray & Neutron Log to 5787'. Pefforated w/Welex Star Jet 4 holes/ft -- Total 228 holes E.L. & R.L. 5615-58; 5662-80; 5752-58; Ran 2-7/8" EUE tubing set 5775.39. Packer not set at 5516.70; seating nipple 5485.80', collar stop at 5456.37'. Displaced mud w/98 bbls oil, spotted acid on formation. Set packer pressured into formation 7000 gals 15% reg.acid. Max. press. 3300#, Min pr. 2000#. Avg treating rate 4.4 BPM, at 3300# Avg. flush rate 3 BPM at 2200# - Total flush 36 BO. Well bled from 2200# to 1600# in 5 min.

1 - B'Ville
1 - Denver
1 - R. N. Hughes
1 - File

FINAL REPORT INDIVIDUAL WELL STATUS

Lease Ratherford Unit Well No. 20-14 Authorization No. P-9610

Summary of Work Performed:

May 28, 1976 - Acidized Zone I Perfs 5615-5658' & 5662-5680' w/4500 gal 28% HCL in 4 stages, separated by 3200# of mothball-unibead block and returned to production.

AVERAGE DAILY PRODUCTION

	Field and Formation	Oil	Gas	Water
Before Work	Aneth Field - Desert Creek	100	NR	1
After Work	Aneth Field - Desert Creek	116	NR	15
Before Work				
After Work				

DATE P.T.D.

DAILY REPORT OF WORK PERFORMED

RATHERFORD UNIT NO. 20-14 PTD 5793. /INITIAL AND FINAL REPORT/ SD WELL, RU R AND R WSU 5/26/76. PLD RODS AND TBG, WIH W/RBP AND PKR, SET BP AT 5720 FT, TAIL PIPE AT 5610 FT, PKR AT 5575 FT. FILLED TBG AND ANNULUS W/120 BW, TSTD TBG TO 1700 PSI. DW ACIDIZED W/4500 GAL 28 PERCENT HCL IN 4 STAGES, SEPARATED BY 3200 LB OF MOTHBALL-UNIBEAD BLOCK. AVG RATE 8.3 BPM, MAX PRESS 1200 PSI, FINAL 11 BPM AT 1000 PSI. ISIP 0 LB. 584 BBL LOAD TO REC. COOH W/BP AND PKR, RERAN TBG AND RODS AND PUT WELL ON PROD. 5/28/76, 13-44 SPM, 1-3/4" PMP. RELEASED WSU 5/28/76. USED 60 BBL WTR TO KEEP WELL FROM KICKING. TOTAL 644 BL AND AW TBR. PRESENT LOAD TO REC 430 BW. DATE LAST TEST BEFORE ACID JOB 5/2/76 AT 100 BOPD, 1 BWPD. AVG TST AFTER ACID JOB, 116 BOPD, 15 BWPD. AFE P-9610 ISSUED TO ACIDIZE ZONE NO. 1, PERFS OF 5615-5658 AND 5662-5680. ANETH FIELD, SAN JUAN CO., UTAH. LOCATION - SEC. 20-T41S-R24E. /FINAL REPORT/.

September 2, 1976
Date Prepared

District Approval

Form 903 8-69

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.: 14-20-603-353

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Navajo

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Rutherford Unit

9. WELL NO.: 30-11

10. FIELD AND POOL, OR WILDCAT: Greater Aneth

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 20-T41S-R24E

12. COUNTY OR PARISH: San Juan

13. STATE: Utah

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL [X] GAS WELL [ ] OTHER

2. NAME OF OPERATOR: Shell Petroleum Company

3. ADDRESS OF OPERATOR: P. O. Box 2920, Casper, Wyoming 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 660' NSL & 660' WEL

14. PERMIT NO.:

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 4867' DF

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[XX]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other)			
(Other)				(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.) *

[redacted]

18. I hereby certify that the foregoing is true and correct

SIGNED A. T. Crum TITLE Area Superintendent DATE September 2, 1976

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

3 - USGS, Farmington, New Mexico
2 - Utah O&G CC, Salt Lake City, Utah
1 - Superior Oil Co., Conroe, TX
1 - File

*See Instructions on Reverse Side

9-331

Form Approved.
Budget Bureau No. 42-R1424

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9–331–C for such proposals.)

1. oil well ☐ gas well ☐ other Lease Road
2. NAME OF OPERATOR
Phillips Petroleum Company
3. ADDRESS OF OPERATOR
P. O. Box 2920 Casper, WY 82602
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)
AT SURFACE:
AT TOP PROD. INTERVAL:
AT TOTAL DEPTH:

5. LEASE 14-20-603-353
14-20-603-407
6. IF INDIAN, ALLOTTEE OR TRIBE NAME
Navajo
7. UNIT AGREEMENT NAME
SW-I-4192
8. FARM OR LEASE NAME
Ratherford Unit
9. WELL NO.
10. FIELD OR WILDCAT NAME
Greater Aneth
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec 20 and 29, T41S-R24E
12. COUNTY OR PARISH
San Juan
13. STATE
Utah
14. API NO.
15. ELEVATIONS (SHOW DF, KDB, AND WD)

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	☐		☐
FRACTURE TREAT	☐		☐
SHOOT OR ACIDIZE	☐		☐
REPAIR WELL	☐		☐
PULL OR ALTER CASING	☐		☐
MULTIPLE COMPLETE	☐		☐
CHANGE ZONES	☐		☐
ABANDON*	☐		☐
(other) road construction ✓			

(NOTE: Report results of multiple completion or zone change on Form 9–330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Approval is requested, contingent on securing Archaeological clearance and residents approval, to construct an access road as shown on the attached Plat A-1A. Approximately 660' of new lease road will be built. The road construction will be of native soil, approximately 20' wide.

RECEIVED
NOV 15 1983
DIVISION OF
OIL, GAS & MINING

Subsurface Safety Valve: Manu. and Type _____ Set @ _____ Ft.

18. I hereby certify that the foregoing is true and correct

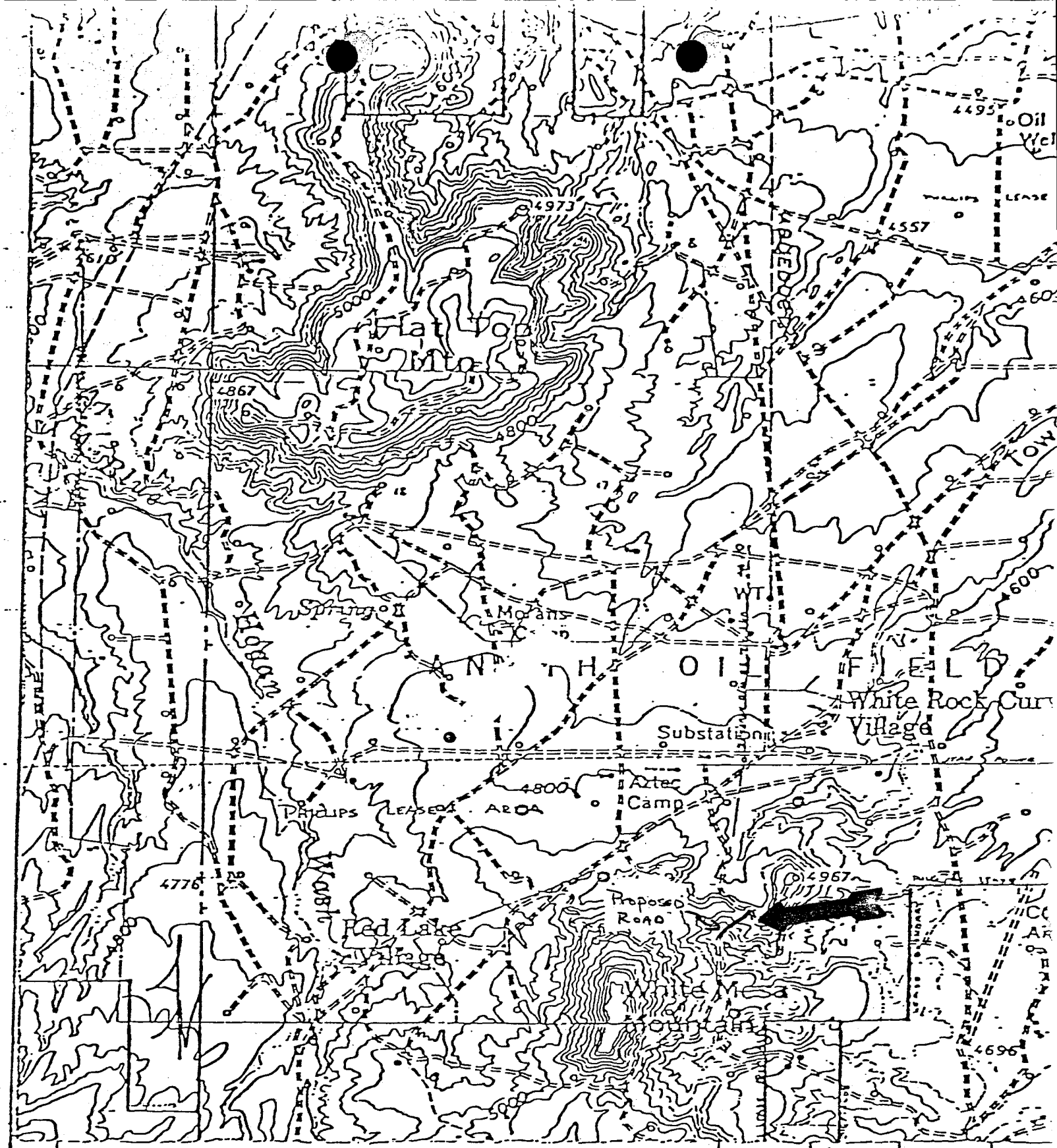
SIGNED A. E. Stuart TITLE Area Manager DATE November 10, 1983

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

5- BLM Farmington
✓ Utah O&G CC SLC, Utah
1- J. L. Whitmire (r) T.C. Doughty
1- G. W. Berk
1- T. M. Isaacs
1- File

*See Instructions on Reverse Side



NO.	REVISION	BY	DATE	CHKD	APP

FOR BIDS

FOR APPR

FOR CONST

DRAWN

CHECKED

PHILLIPS PETROLEUM COMPANY

RATHERFORD UNIT
PROPOSED ROAD
T41S-R24E
SAN JUAN CO., UTAH

JA NO.

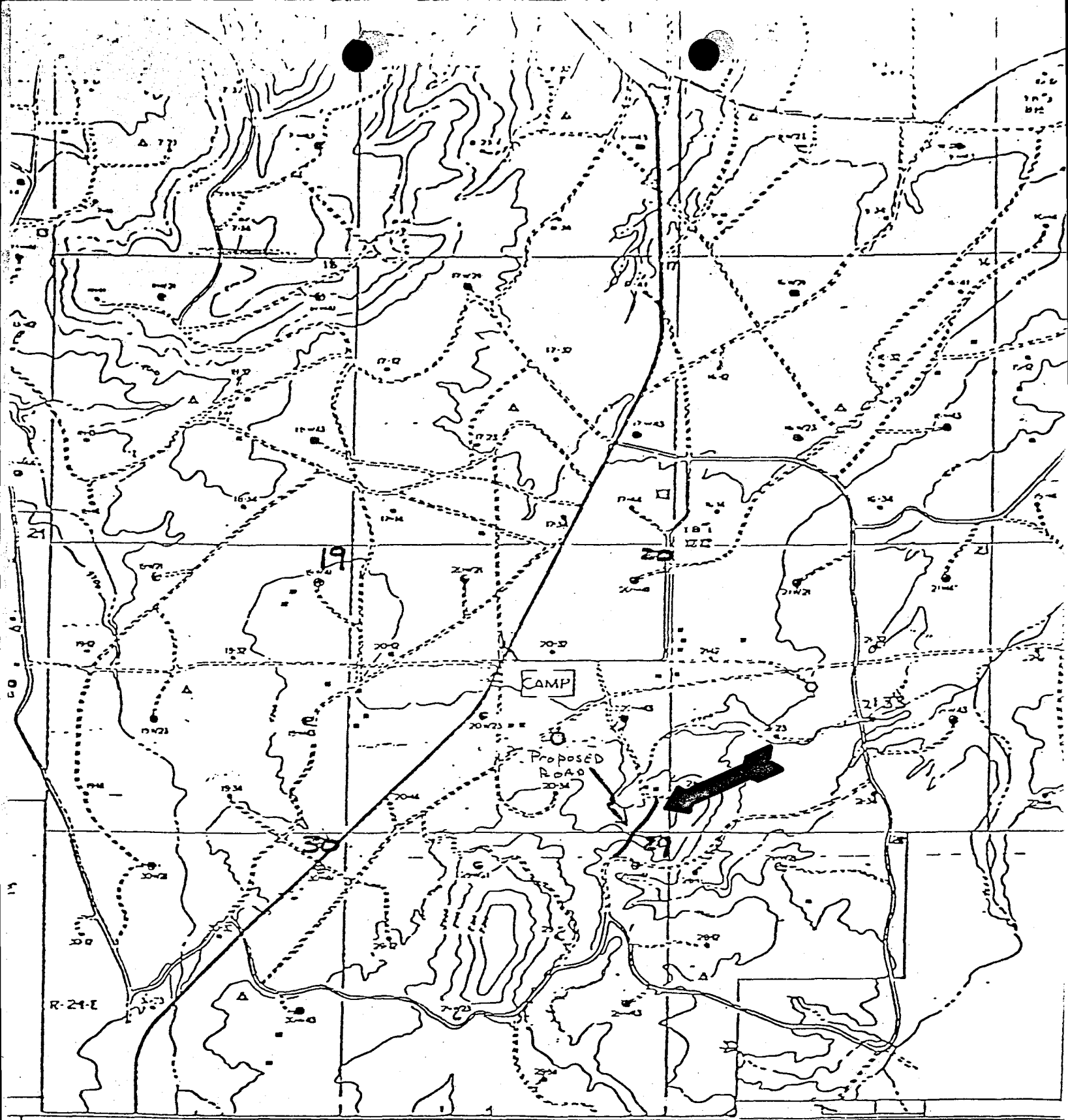
FILE CC

AFE NO.

SCALE 1" = 2,4 IN

DWG NO.

SH NO.



REVISION	BY	DATE	CHKD	APP'D

BIDS	PHILLIPS PETROLEUM COMPANY	JA NO.	FILE CODE
APPR	BARTLESVILLE, OKLAHOMA		
CONST	RATHERFORD UNIT PROPOSED ROAD	AFE NO.	SCALE 2¼" = 1 mi
DWN CJW	T 41S - R 24E	DWG NO.	
CKED	SAN JUAN CO., UTAH	SH NO.	A-1A
D			

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

5. LEASE DESIGNATION AND SERIAL NO.: 96-004192

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Navajo

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL [XX] GAS WELL [ ] OTHER

7. UNIT AGREEMENT NAME: Ratherford Unit

2. NAME OF OPERATOR: Phillips Oil Company

8. FARM OR LEASE NAME:

3. ADDRESS OF OPERATOR: P. O. Box 2920, Casper, WY 82602

9. WELL NO.:

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: See Attached

10. FIELD AND POOL, OR WILDCAT: N/A

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: See Attached

14. PERMIT NO.: See Attached

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

12. COUNTY OR PARISH: San Juan

13. STATE: Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	[ ]	PULL OR ALTER CASING	[ ]	WATER SHUT-OFF	[ ]	REPAIRING WELL	[ ]
FRACTURE TREAT	[ ]	MULTIPLE COMPLETE	[ ]	FRACTURE TREATMENT	[ ]	ALTERING CASING	[ ]
SHOOT OR ACIDIZE	[ ]	ABANDON*	[ ]	SHOOTING OR ACIDIZING	[ ]	ABANDONMENT*	[ ]
REPAIR WELL	[ ]	CHANGE PLANS	[ ]	(Other)			
(Other)				(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.) *

To show change of Operator only. Phillips Oil Company assumed operations effective December 1, 1983 from Phillips Petroleum Company. See attached for list of wells.

100 wells

90-14

RECEIVED
DEC - 8 1983

Org.& 3-BLM
1-The Navajo Nation
1-Mary Wiley Black
1-Lawrence E. Brock
1-Cheveron USA
1-Ralph Faxel
1-Royal Hogan
1-W. O. Keller
1-Dee Kelly Corp.
1-Robert Klabzuba
1-Micheal J. Moncrief
1-Richard B. Moncrief
1-Lee W. Moncrief
1-Mary H. Morgan
1-W. A. Moncrief
1-W. A. Moncrief, Jr.
1-L. F. Peterson
1-Shell Oil Co.
1-Southland Royalty Co.
1-Superior Oil Co.
1-Leroy Shave
1-Texaco, Inc.
1-Wade Wiley, Jr.
1-Edwin W. Word, Jr.
1-File

18. I hereby certify that the foregoing is true and correct

SIGNED A. E. Stuart TITLE Area Manager DATE 12/6/83

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

WELL NO.	WELL LOCATION	API NO.	STATUS
E14-12	SW NW Sec. 14-T41S-R24E	43-037-15998	Act.
E14-13	NW SW Sec. 14-T41S-R24E	43-037-15999	SI
10-44	SE SE Sec. 10-T41S-R24E	43-037-30451	Act.
15-12	SW NW Sec. 15-T41S-R24E	43-037-15715	Act.
15-14	SW SW Sec. 15-T41S-R24E	43-037-15716	SI
15-22	SE NW Sec. 15-T41S-R24E	43-037-30449	Act.
15-32	SW NE Sec. 15-T41S-R24E	43-037-15717	Act.
15-33	NW SE Sec. 15-T41S-R24E	43-037-15718	SI
15-41	NE NE Sec. 15-T41S-R24E	43-037-15719	Act.
15-42	SE NE Sec. 15-T41S-R24E	43-037-3-448	SI
16-12	SW NW Sec. 16-T41S-R24E	43-037-15720	Act.
16-14	SW SW Sec. 16-T41S-R24E	43-037-15721	Act.
16-32	SW NE Sec. 16-T41S-R24E	43-037-15723	Act.
16-34	SW SE Sec. 16-T41S-R24E	43-037-15724	SI
16-41	NE NE Sec. 16-T41S-R24E	43-037-15725	Act.
17-12	SW NW Sec. 17-T41S-R24E	43-037-15726	Act.
17-14	SW SW Sec. 17-T41S-R24E	43-037-15727	Act.
17-23	NE SW Sec. 17-T41S-R24E	43-037-15728	Act.
17-32	SW NE Sec. 17-T41S-R24E	43-037-15729	Act.
17-34	SW SE Sec. 17-T41S-R24E	43-037-15730	Act.
17-41	NE NE Sec. 17-T41S-R24E	43-037-15731	Act.
17-44	SE SE Sec. 17-T41S-R24E	43-037-15732	Act.
18-11	NW NW Sec. 18-T41S-R24E	43-037-15733	SI
18-13	NW SW Sec. 18-T41S-R24E	43-037-15734	Act.
18-14	SW SW Sec. 18-T41S-R24E	43-037-15735	Act.
18-23	NE SW Sec. 18-T41S-R24E	43-037-30244	Act.
18-32	SW NE Sec. 18-T41S-R24E	43-037-15736	Act.
18-34	SW SE Sec. 18-T41S-R24E	43-037-15737	Act.
19-12	SW NW Sec. 19-T41S-R24E	43-037-15739	Act.
19-14	SW SW Sec. 19-T41S-R24E	43-037-15740	SI
19-32	SW NE Sec. 19-T41S-R24E	43-037-15743	Act.
19-34	SW SE Sec. 19-T41S-R24E	43-037-15744	Act.
20-12	SW NW Sec. 20-T41S-R24E	43-037-15746	Act.
20-14	SW SW Sec. 20-T41S-R24E	43-037-15747	Act.
20-32	SW NE Sec. 20-T41S-R24E	43-037-15749	Act.
20-34	SW SE Sec. 20-T41S-R24E	43-037-15750	Act.
21-12	SW NW Sec. 21-T41S-R24E	43-037-15752	Act.
21-14	SW SW Sec. 21-T41S-R24E	43-037-15753	Act.
21-23	NE SW Sec. 21-T41S-R24E	43-037-13754	Act.
21-32	SW NE Sec. 21-T41S-R24E	43-037-15755	Act.
21-33	NW SE Sec. 21-T41S-R24E	43-037-30447	SI
21-34	SW SE Sec. 21-T41S-R24E	43-037-15756	Act.
22-12	SW NW Sec. 22-T41S-R24E	43-037-15757	SI
22-14	SW SW Sec. 22-T41S-R24E	43-037-15758	SI
24-42	SE NE Sec. 24-T41S-R24E	43-037-15863	Act.
28-11	NW NW Sec. 28-T41S-R24E	43-037-30446	Act.
28-12	SW NW Sec. 28-T41S-R24E	43-037-15336	Act.
29-12	SW NW Sec. 29-T41S-R24E	43-037-15337	Act.
29-32	SW NE Sec. 29-T41S-R24E	43-037-15339	Act.

Mobil Oil Corporation

P.O. BOX 5444
DENVER, COLORADO 80217-5444

May 14, 1986

RECEIVED
MAY 16 1986

DIVISION OF
OIL, GAS & MINING

Utah Board of Oil, Gas and Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

Attn: R. J. Firth
Associate Director

SUPERIOR OIL COMPANY MERGER

Dear Mr. Firth:
On September 20, 1984, The Superior Oil Company (Superior) became a wholly owned subsidiary of Mobil Corporation. Since January 1, 1985, Mobil Oil Corporation (MOC), another wholly owned subsidiary of Mobil Corporation, has acted as agent for Superior and has operated the Superior-owned properties.

On April 24, 1986, Superior was merged with Mobil Exploration and Producing North America Inc. (MEPNA), which is also a wholly owned subsidiary of Mobil Corporation. MEPNA is the surviving company of the merger.

This letter is to advise you that all properties held in the name of Superior will now be held in the name of MEPNA; and that these properties will continue to be operated by MOC as agent for MEPNA.

Attached is a listing of all wells and a separate listing of injection-disposal wells, Designation of Agent and an organization chart illustrating the relationships of the various companies. If you have any questions or require additional documentation of this merger, please feel free to contact me at the above address or (303) 298-2577.

Very truly yours,

R. D. Baker
Environmental Regulatory Manager

CNE/rd
CNE8661

FORM 10

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

MONTHLY OIL AND GAS PRODUCTION REPORT

OPERATOR NAME AND ADDRESS:

P J KONKEL
PHILLIPS PETROLEUM COMPANY
5525 HWY 64 NBU 3004
FARMINGTON NM 87401

RECEIVED
AUG 16 1993
DIVISION OF
OIL, GAS & MINING

UTAH ACCOUNT NUMBER: N0772

REPORT PERIOD (MONTH/YEAR): 6 / 93

AMENDED REPORT ☐ (Highlight Changes)

Well Name / API Number	Entity	Location	Producing Zone	Well Status	Days Oper	Production Volumes OIL(BBL)	GAS(MCF)	WATER(BBL)
#21-23 4303713754	06280	41S 24E 21	DSCR	POW	29	1374	883	58
#3-44 4303715031	06280	41S 24E 3	DSCR	POW	30	111	94	2905
#3-14 4303715124	06280	41S 24E 3	DSCR	POW	30	67	23	302
#9-12 4303715126	06280	41S 24E 9	DSCR	POW	30	112	654	17363
#9-14 4303715127	06280	41S 24E 9	DSCR	POW	30	201	315	423
#28-12 4303715336	06280	41S 24E 28	PRDX	POW	29	112	47	2428
#29-12 4303715337	06280	41S 24E 29	PRDX	POW	29	56	0	672
#29-32 4303715339	06280	41S 24E 29	DSCR	POW	29	1402	287	2224
#29-34 4303715340	06280	41S 24E 29	DSCR	POW	29	757	48	0
#30-32 4303715342	06280	41S 24E 30	DSCR	POW	29	588	1049	3744
#3-12 4303715620	06280	41S 24E 3	DSCR	POW	30	268	11	363
#9-34 4303715711	06280	41S 24E 9	DSCR	POW	30	45	46	9800
#10-12 4303715712	06280	41S 24E 10	DSCR	POW	30	45	23	1088
				TOTALS		5138	3480	41370

USEN 8-18-93

COMMENTS: Effective July 1, 1993, Phillips Petroleum Company has sold its interest in the Ratherford Unit to Mobil Exploration and Producing U.S., Incorporated, P. O. Box 633, Midland, Texas 79702. Mobil assumed operations on July 1, 1993.

I hereby certify that this report is true and complete to the best of my knowledge. Date: 8/11/93

Name and Signature: PAT KONKEL Pat Konkel Telephone Number: 505 599-3452

(6/93)

FORM 11

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

MONTHLY OIL AND GAS DISPOSITION REPORT

OPERATOR NAME AND ADDRESS:

L.B. Sheffield
~~BRIAN BERRY~~
~~M E P N A~~ MOBIL
~~POB 219031 1807A RENTWR~~ P.O. DRAWER G
DALLAS TX 75221-9031 CORTEZ, Co. 81321

UTAH ACCOUNT NUMBER: N7370

REPORT PERIOD (MONTH/YEAR): 7 / 93

AMENDED REPORT ☐ **(Highlight Changes)**

*93100 updated. fee

ENTITY NUMBER	PRODUCT	GRAVITY BTU	BEGINNING INVENTORY	VOLUME PRODUCED	DISPOSITIONS TRANSPORTED	DISPOSITIONS USED ON SITE	DISPOSITIONS FLARED/VENTED	DISPOSITIONS OTHER	ENDING INVENTORY
05980	OIL			177609	177609	0			
	GAS			72101	66216	5885			
11174	OIL								
	GAS								
	OIL								
	GAS								
	OIL								
	GAS								
	OIL								
	GAS								
	OIL								
	GAS								
	OIL								
	GAS								
TOTALS				249710	243825	5885			

RECEIVED
SEP 13 1993
DIVISION OF
OIL, GAS & MINING

COMMENTS: PLEASE NOTE ADDRESS CHANGE. MOBIL ~~E&P~~ PRODUCTION REPORTS WILL BE COMPILED AND SENT FROM THE CORTEZ, Co. OFFICE IN THE FUTURE.

I hereby certify that this report is true and complete to the best of my knowledge.

Date: 9/6/93

Name and Signature: Lowell B Sheffield

Telephone Number: ~~214 658 2528~~ 303 565 2212

(6/93)

FORM=NR0003.FRM 07/2

FORM 9

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION & SERIAL NO.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: NAVAJO TRIBAL

1. OIL WELL ☐ GAS WELL ☐ OTHER

7. UNIT AGREEMENT NAME: RATHERFORD UNIT

2. NAME OF OPERATOR: MOBIL OIL CORPORATION

8. FARM OR LEASE NAME:

3. ADDRESS OF OPERATOR: P. O. BOX 633 MIDLAND, TX 79702

9. WELL NO.:

RECEIVED
SEP 13 1993
DIVISION OF
OIL, GAS & MINING

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.)
At surface:
At proposed prod. zone:

10. FIELD AND POOL, OR WILDCAT: GREATER ANETH

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA:

14. API NO.	15. ELEVATIONS (Show whether DF, RT, GR, etc.)	12. COUNTY	13. STATE
		SAN JUAN	UTAH

16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐	FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOT OR ACIDIZE	☐	ABANDON	☐	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
REPAIR WELL	☐	CHANGE PLANS	☐	(Other) CHANGE OF OPERATOR			
(Other)				(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

APPROX. DATE WORK WILL START _____

DATE OF COMPLETION _____

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

* Must be accompanied by a cement verification report.

AS OF JULY1, 1993, MOBIL OIL CORPORATION IS THE OPERATOR OF THE RATHERFORD UNIT. ATTACHED ARE THE INDIVIDUAL WELLS.

18. I hereby certify that the foregoing is true and correct

SIGNED Shirley Todd TITLE ENV. & REG TECHNICIAN DATE 9-8-93

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

See Instructions On Reverse Side

(3/89)

Sept 29, 1993

TO: Lisha Cordova - Utah Mining Oil & Gas

FROM: Janice Easley
BLM Farmington, NM
505 599-6355

Here is copy of Rutherford Unit Successor Operator.

4 pages including this one.

Re: Ratherford Unit (GC)

Navajo Area Office
P. O. Box 1060
Gallup, New Mexico 87305-1060

ARES/543

JUL 26 1993

Mr. G. D. Cox
Mobil Exploration and
Producing North America, Inc.
P. O. Box 633
Midland, Texas 79702

Dear Mr. Cox:

Enclosed for your information and use is the approved Designation of Operator between the Phillips Petroleum Company and Mobil Exploration and Producing North America, Inc. for the Ratherford Unit.

Please note that all other concerned parties will be furnished their copy of the approved document.

Sincerely,

ACTING Area Director

Enclosure

cc: Bureau of Land Management, Farmington District Office w/enc.
TNN, Director, Minerals Department w/enc.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF INDIAN AFFAIRS

DESIGNATION OF OPERATOR

Phillips Petroleum Company is, on the records of the Bureau of Indian Affairs, operator of the Ratherford Unit,

AREA OFFICE: Window Rock, Arizona
LEASE NO: Attached hereto as Exhibit "A"

and, pursuant to the terms of the Ratherford Unit Agreement, is resigning as Unit Operator effective July 1, 1993, and hereby designates

NAME: Mobil Exploration and Producing North America Inc., duly elected pursuant to the terms of the Ratherford Unit Agreement,

ADDRESS: P. O. Box 633, Midland, Texas 79702
Attn: G. D. Cox

as Operator and local agent, with full authority to act on behalf of the Ratherford Unit lessees in complying with the terms of all leases and regulations applicable thereto and on whom the authorized officer may serve written or oral instructions in securing compliance with the Operating Regulations (43 CFR 3160 and 25 CFR 211 and 212) with respect to (described acreage to which this designation is applicable):

Attached hereto as Exhibit "A"

Bond coverage under 25 CFR 211, 212 or 225 for lease activities conducted by the above named designated operator is under Bond Number 05202782 (attach copy). Evidence of bonding is required prior to the commencement of operations.

It is understood that this designation of operator does not relieve any lessee of responsibility for compliance with the terms of the leases and the Operating Regulations. It is also understood that this designation of operator does not constitute an assignment of any interest in the leases.

In case of default on the part of the designated operator, the lessees will make full and prompt compliance with all regulations, lease terms, stipulations, or orders of the Secretary of the Interior or his representative.

Attached is the appropriate documentation relevant to this document.

The designated operator agrees to promptly notify the authorized officer of any change in the operatorship of said Ratherford Unit.

Phillips Petroleum Company

June 17, 1993

By: M. B. Frost, Jr.
Attorney-in-Fact

Mobil Exploration and Producing
North America Inc.

June 11, 1993

By: B. D. Martiny
Attorney-in-Fact B.D. MARTINY

ACTING AREA DIRECTOR 7/9/93
APPROVED BY TITLE DATE

APPROVED PURSUANT, TO SECRETARIAL REDELEGATION ORDER 209 DM 8 AND 230 DM 3.
This form does not constitute an information collection as defined by 44 U.S.C. 3502 and therefore does not require OMB approval.

EXHIBIT "A"

ATTACHED TO AND MADE A PART OF DESIGNATION OF SUCCESSOR OPERATOR, RATHERFORD UNIT

EXHIBIT "C"

Revised as of September 29, 1992)
SCHEDULE OF TRACT PERCENTAGE PARTICIPATION

Tract Number	Description of Land	Serial Number and Effective Date of Lease	Tract Percentage Participation
1	S/2 Sec. 1, E/2 SE/4 Sec. 2, E/4 Sec. 11, and all of Sec. 12, T-41-S, R-23-E, S.L.M. San Juan County, Utah	14-20-603-246-A Oct. 5, 1953	11.0652565
2	SE/4 and W/2 SW/4 Sec. 5, the irregular SW/4 Sec. 6, and all of Sec. 7 and 8, T-41-S, R-24-E, San Juan County, Utah	14-20-603-368 Oct. 26, 1953	14.4159942
3	SW/4 of Sec. 4, T-41-S, R-24-E, San Juan County, Utah	14-20-603-5446 Sept. 1, 1959	.5763826
4	SE/4 Sec. 4, and NE/4 Sec. 9, T-41-S, R-24-E, San Juan County, Utah	14-20-603-4035 March 3, 1958	1.2587779
5	SW/4 of Sec. 3, T-41-S, R-24-E, S.L.M., San Juan County, Utah	14-20-603-5445 Sept. 3, 1959	.4667669
6	NW/4 of Sec. 9, T-41-S, R-24-E, S.L.M., San Juan County, Utah	14-20-603-5045 Feb. 4, 1959	1.0187043
7	NW/4, W/2 NE/4, and SW/4 Sec. 10, SE/4 Sec. 9, T-41-S, R-24-E, San Juan County, Utah	14-20-603-4043 Feb. 18, 1958	3.5097575
8	SW/4 Sec. 9, T-41-S, R-24-E, S.L.M. San Juan County, Utah	14-20-603-5046 Feb. 4, 1959	1.1141679
9	SE/4 Sec. 10 and S/2 SW/4 Sec. 11 T-41-S, R-24-E, San Juan County, Utah	14-20-603-4037 Feb. 14, 1958	2.6186804
10	All of Sec. 13, E/2 Sec. 14, and E/2 SE/4 and N/2 Sec. 24, T-41-S, R-23-E, S.L.M., San Juan County, Utah	14-20-603-247-A Oct. 5, 1953	10.3108861
11	Sections 17, 18, 19 and 20, T-41-S, R-24-E, San Juan County Utah	14-20-603-353 Oct. 27, 1953	27.3389265
12	Sections 15, 16, 21, and NW/4, and W/2 SW/4 Sec. 22, T-41-S, R-24-E, San Juan County, Utah	14-20-603-355 Oct. 27, 1953	14.2819339
13	W/2 Section 14, T-41-S, R-24-E, San Juan County, Utah	14-20-603-370 Oct. 26,1953	1.8500847
14	N/2 and SE/4, and E/2 SW/4 Sec. 29, NE/4 and E/2 SE/4 and E/2 W/2 irregular Sec. 30, and E/2 NE/4 Sec. 32, T-41-S, R-24-E, San Juan County, Utah	14-20-603-407 Dec. 10, 1953	6.9924969
15	NW/4 Sec. 28, T-41-S, R24-E San Juan County, Utah	14-20-603-409 Dec. 10, 1953	.9416393
16	SE/4 Sec. 3, T-41-S, R-24-E San Juan County, Utah	14-20-0603-6504 July 11, 1961	.5750254
17	NE/4 Sec. 3, T-41-S, R-24-E San Juan County, Utah	14-20-0603-6505 July 11, 1961	.5449292
18	NW/4 Sec. 3, T-41-S, R-24-E San Juan County, Utah	14-20-0603-6506 July 11, 1961	.5482788
19	NE/4 Sec. 4, T-41-S, R24-E San Juan County, Utah	14-20-0603-7171 June 11, 1962	.4720628
20	E/2 NW/4 Sec. 4, T-41-S, R-24-E San Juan County, Utah	14-20-0603-7172 June 11, 1962	.0992482
100% Indian Lands		TOTAL 12,909.74	100.0000000

Division of Oil, Gas and Mining

PHONE CONVERSATION DOCUMENTATION FORM

Route original/copy to:

[] Well File _____

_____

(Location) Sec___Twp___Rng___

(API No.) _____

[] Suspense

(Return Date) _____

(To - Initials) _____

XXX Other

OPERATOR CHANGE

1. Date of Phone Call: 10-6-93 Time: 9:30

2. DOGM Employee (name) L. CORDOVA (Initiated Call XXX)

Talked to:

Name GLEN COX (Initiated Call []) - Phone No. (915)688-2114

of (Company/Organization) MOBIL

3. Topic of Conversation: OPERATOR CHANGE FROM PHILLIPS TO MOBIL "RATHERFORD UNIT".

(NEED TO CONFIRM HOW OPERATOR WANTS THE WELLS SET UP - MEPNA AS PER BIA APPROVAL

OR MOBIL OIL CORPORATION AS PER SUNDRY DATED 9-8-93?)

4. Highlights of Conversation:

MR. COX CONFIRMED THAT THE WELLS SHOULD BE SET UNDER ACCOUNT N7370/MEPNA AS PER BIA APPROVAL, ALSO CONFIRMED THAT PRODUCTION & DISPOSITION REPORTS WILL NOW BE HANDLED OUT OF THEIR CORTEZ OFFICE RATHER THAN DALLAS.

MEPNA-

PO DRAWER G

CORTEZ, CO 81321

(303)565-2212

*ADDRESS CHANGE AFFECTS ALL WELLS CURRENTLY OPERATORED BY MEPNA, CURRENTLY REPORTED OUT OF DALLAS (MCELMO CREEK).

Division of Oil, Gas and Mining
OPERATOR CHANGE WORKSHEET

Routing:

1-VLC/DH7-SJ	
2-DTS/S8-FILE	
3-VLC	
4-RJF	
5-LEC	
6-PL	

Attach all documentation received by the division regarding this change.
Initial each listed item when completed. Write N/A if item is not applicable.

XX Change of Operator (well sold) ☐ Designation of Agent
☐ Designation of Operator ☐ Operator Name Change Only

The operator of the well(s) listed below has changed (EFFECTIVE DATE: 7-1-93)

TO (new operator) MEPNA
(address) PO DRAWER G
CORTEZ, CO 81321
GLEN COX (915)688-2114
phone (303) 565-2212
account no. N7370

FROM (former operator) PHILLIPS PETROLEUM COMPANY
(address) 5525 HWY 64 NBU 3004
FARMINGTON, NM 87401
PAT KONKEL
phone (505) 599-3452
account no. N0772(A)

Well(s) (attach additional page if needed): *RATHERFORD UNIT (NAVAJO)

Name: **SEE ATTACHED**	API: 43037157147	Entity:	Sec	Twp	Rng	Lease Type:
Name:	API:	Entity:	Sec	Twp	Rng	Lease Type:
Name:	API:	Entity:	Sec	Twp	Rng	Lease Type:
Name:	API:	Entity:	Sec	Twp	Rng	Lease Type:
Name:	API:	Entity:	Sec	Twp	Rng	Lease Type:
Name:	API:	Entity:	Sec	Twp	Rng	Lease Type:
Name:	API:	Entity:	Sec	Twp	Rng	Lease Type:

OPERATOR CHANGE DOCUMENTATION

Lec 1. (Rule R615-8-10) Sundry or other legal documentation has been received from former operator (Attach to this form). (Req. 8-20-93) (6/93 Prod. Rpt. 8-16-93)

Lec 2. (Rule R615-8-10) Sundry or other legal documentation has been received from new operator (Attach to this form). (Req. 8-31-93) (Rec'd 9-14-93)

N/A 3. The Department of Commerce has been contacted if the new operator above is not currently operating any wells in Utah. Is company registered with the state? (yes/no) _____ If yes, show company file number: _____.

Lec 4. **(For Indian and Federal Wells ONLY)** The BLM has been contacted regarding this change (attach Telephone Documentation Form to this report). Make note of BLM status in comments section of this form. Management review of **Federal and Indian** well operator changes should take place prior to completion of steps 5 through 9 below.

Lec 5. Changes have been entered in the Oil and Gas Information System (Wang/IBM) for each well listed above. (O&G wells 10-6-93) (WIW's 10-26-93)

Lec 6. Cardex file has been updated for each well listed above. (O&G wells 10-6-93) (WIW's 10-26-93)

Lec 7. Well file labels have been updated for each well listed above. (O&G wells 10-6-93) (WIW's 10-26-93)

Lec 8. Changes have been included on the monthly "Operator, Address, and Account Changes" memo for distribution to State Lands and the Tax Commission. (10-6-93)

Lec 9. A folder has been set up for the Operator Change file, and a copy of this page has been placed there for reference during routing and processing of the original documents.

– OVER –

PERATOR CHANGE WORKSHEET (CONTINUED) Initial each item when completed. Write N/A if item is not applicable.

ENTITY REVIEW

Lec 1. (Rule R615-8-7) Entity assignments have been reviewed for all wells listed above. Were entity changes made? (yes/no) ____ (If entity assignments were changed, attach copies of Form 6, Entity Action Form).

N/A 2. State Lands and the Tax Commission have been notified through normal procedures of entity changes.

BOND VERIFICATION (Fee wells only)

Lec/N/A 1. (Rule R615-3-1) The new operator of any fee lease well listed above has furnished a proper bond.

__ 2. A copy of this form has been placed in the new and former operators' bond files.

__ 3. The former operator has requested a release of liability from their bond (yes/no) ___. Today's date _____ 19___. If yes, division response was made by letter dated _____ 19___.

LEASE INTEREST OWNER NOTIFICATION RESPONSIBILITY

N/A 1. (Rule R615-2-10) The former operator/lessee of any **fee lease** well listed above has been notified by letter dated _____ 19___, of their responsibility to notify any person with an interest in such lease of the change of operator. Documentation of such notification has been requested.
DTS 11-10-93

N/A 2. Copies of documents have been sent to State Lands for changes involving **State leases.**

FILMING

L 1. All attachments to this form have been microfilmed. Date: 11-17 1993.

FILING

Lec 1. Copies of all attachments to this form have been filed in each well file.

Lec 2. The original of this form and the original attachments have been filed in the Operator Change file.

COMMENTS

931006 BIA/Bfm Approved 7-9-93.

19W-21	43-037-15741	14-20-603-353	SEC. 19, T41S, R24E	NE/NW 660' FNL 1860' FWL
19-22	43-037-31046	14-20-603-353	SEC. 19, T41S, R24E	SE/NW 1840' FNL; 1980' FWL
19W-23	43-037-15742	14-20-603-353	SEC. 19, T41S, R24E	NE/SW 2080' FSL; 1860' FWL
19-31	43-037-31047	14-20-603-353	SEC. 19, T41S, R24E	NW/NE 510' FNL; 1980' FEL
19-32	43-037-15743	14-20-603-353	SEC. 19, T41S, R24E	SW/NE 1980' FNL; 1980' FEL
19-33	43-037-31048	14-20-603-353	SEC. 19, T41S, R24E	NW/SE 1980' FSL; 1980' FEL
19-34	43-037-15744	14-20-603-353	SEC. 19, T41S, R24E	SW/SE 660' FSL; 1980' FEL
19W-41	43-037-15745	14-20-603-353	SEC. 19, T41S, R24E	NE/NE 660' FNL; 660' FEL
19-42	43-037-30916	14-20-603-353	SEC. 19, T41S, R24E	SE/NE 1880' FNL, 660' FEL
19W-43	43-037-16420	14-20-603-353	SEC. 19, T41S, R24E	NE/SE 1980' FSL; 760' FEL
19-44	43-037-31081	14-20-603-353	SEC. 19, T41S, R24E	SE/SE 660' FSL; 660' FEL
19-97	43-037-31596	14-20-603-353	SEC. 19, T41S, R24E	2562' FNL, 30' FEL
20-11	43-037-31049	14-20-603-353	SEC. 20, T41S, R24E	NW/NW 500' FNL; 660' FWL
20-12	43-037-15746	14-20-603-353	SEC. 20, T41S, R24E	1980' FNL, 660' FWL
20-13	43-037-30917	14-20-603-353	SEC. 20, T41S, R24E	NW/SW 2140' FSL, 500' FWL
20-14	43-037-15747	14-20-603-353	SEC. 20, T41S, R24E	660' FSL; 660' FWL
20W-21	43-037-16423	14-20-603-353	SEC. 20, T41S, R24E	660' FNL; 1880' FWL
20-22	43-037-30930	14-20-603-353	SEC. 20, T41S, R24E	SE/NW 2020' FNL; 2090' FWL
20W-23	43-037-15748	14-20-603-353	SEC. 20, T41S, R24E	NW/SW 2080; 2120' FWL
20-24	43-037-30918	14-20-603-353	SEC. 20, T41S, R24E	SE/SW 820' FSL; 1820' FWL
20-31	43-037-31050	14-20-603-353	SEC. 20, T41S, R24E	NW/NE 660' FNL; 1880' FEL
20-32	43-037-15749	14-20-603-353	SEC. 20, T41S, R24E	SW/NE 1980' FNL, 1980' FEL
20-33	43-037-30931	14-20-603-353	SEC. 20, T41S, R24E	NW/SE 1910' FSL; 2140' FEL
20-34	43-037-15750	14-20-603-353	SEC. 20, T41S, R24E	660' FSL; 1850' FEL
20W-41	43-037-15751	14-20-603-353	SEC. 20, T41S, R24E	NE/NE 660' FNL; 660' FEL — PA'd
20-42	43-037-31051	14-20-603-353	SEC. 20, T41S, R24E	SE/NE 1980 ' FNL; 660' FEL
20W-43	43-037-16424	14-20-603-353	SEC. 20, T41S, R24E	2070' FSL; 810' FEL
20-44	43-037-30915	14-20-603-353	SEC. 20, T41S, R24E	SE/SE 620' FSL; 760' FEL
20-66	43-037-31592	14-20-603-353	SEC. 20, T41S, R24E	SW/NW 1221' FWL; 1369' FNL
21-11	43-037-31052	14-20-603-355	SEC. 21, T41S, R24E	NW/NW 660' FNL; 660 FWL
21-12	43-037-15752	14-20-603-355	SEC. 21, T41S, R24E	2080' FNL; 660' FWL
21-13	43-037-30921	14-20-603-355	SEC. 21, T41S, R24E	NW/SW 2030' FSL; 515' FWL
21-14	43-037-15753	14-20-603-355	SEC. 21, T41S, R24E	SW/SW 660' FSL; 460' FWL
21W-21	43-037-16425	14-20-603-355	SEC. 21, T41S, R24E	NE/NW 660' FNL; 2030' FWL
21-32	43-037-15755	14-20-603-355	SEC. 21, T41S, R24E	SW/NE 1880' FNL; 1980' FEL
~~21-33~~	~~NA~~	~~14-20-603-355~~	~~SEC. 21, T41S, R24E~~	~~2000 FSL; 1860' FEL~~
21-34	43-037-15756	14-20-603-355	SEC. 21, T41S, R24E	SW/SE 660' FSL; 1980' FEL
21W-41	43-037-16426	14-20-603-355	SEC. 21, T41S, R24E	660' FNL; 810' FEL — PA'd
21W-43	43-037-16427	14-20-603-355	SEC. 21, T41S, R24E	NE/NE 1980' FSL; 660' FEL
24-11	43-037-15861	14-20-603-247A	SEC. 24, T41S, R24E	510' FNL; 810' FWL — PA'd
24W-21	43-037-16429	14-20-603-247	SEC. 24, T41S, R24E	4695' FSL; 3300' FEL — PA'd
24W-43	43-037-16430	14-20-603-247	SEC. 24, T41S, R24E	2080' FSL; 660' FEL
24-31W	43-037-15862	14-20-603-247A	SEC. 24, T41S, R24E	NW/NE 560' FNL; 1830' FEL
24-32	43-037-31593	14-20-603-247A	SEC. 24, T41S, R24E	SW/NE 2121' FNL; 1846' FEL
24-41	43-037-31132	14-20-603-247A	SEC. 24, T41S, R24E	NE/NE 660' FNL; 710' FEL
24W-42	43-037-15863	14-20-603-247A	SEC. 24, T41S, R24E	660' FSL; 1980' FNL
28-11	43-037-30446	14-20-603-409	SEC. 28, T41S, R24E	NW/NW 520' FNL; 620' FWL
28-12	43-037-15336	14-20-603-409B	SEC. 28, T41S, R24E	SW/SE/NW 2121' FNL; 623' FWL
29-11	43-037-31053	14-20-603-407	SEC. 29, T41S, R24E	NW/NW 770' FNL; 585' FWL
29W-21	43-037-16432	14-20-603-407	SEC. 29, T41S, R24E	NE/NW 667' FNL; 2122' FWL
29-22	43-037-31082	14-20-603-407	SEC. 29, T41S, R24E	SE/NW 2130' FNL; 1370' FWL
29W-23	43-037-15338	14-20-603-407	SEC. 29, T41S, R24E	NE/SW 1846' FSL; 1832' FWL
29-31	43-037-30914	14-20-603-407	SEC. 29, T41S, R24E	NW/NE 700' FNL; 2140' FEL
29-32	43-037-15339	14-20-603-407	SEC. 29, T41S, R24E	1951' FNL; 1755' FEL
29-33	43-037-30932	14-20-603-407	SEC. 29, T41S, R24E	NW/SE 1860' FSL; 1820' FEL
29-34	43-037-15340	14-20-603-407	SEC. 29, T41S, R24E	817 FSL; 2096' FEL
29W-41	43-037-16433	14-20-603-407	SEC. 29, T41S, R24E	557' FNL; 591' FEL
29W-42	43-037-30937	14-20-603-407	SEC. 29, T41S, R24E	SE/NE 1850' FNL; 660' FEL
29W-43	43-037-16434	14-20-603-407	SEC. 29, T41S, R24E	NE/SE 1980' FSL; 660' FEL
30-21W	43-037-16435	14-20-603-407	SEC. 30, T41S, R24E	660' FNL; 1920' FWL
30-32	43-037-15342	14-20-603-407	SEC. 30, T41S, R24E	SW/NE 1975' FNL; 2010' FEL
30W-41	43-037-15343	14-20-603-407	SEC. 30, T41S, R24E	NE/NE 660' FNL; 660' FEL
9-34	NA 43037157II	NA 14206034043	NA Sec. 9 T. 41S R. 24E	NA SWSE 660' FSL 1980 FEL
12-43	43-307-31202	14-20-603-246	SEC. 12. T41S. R23E	2100' FSL;660 FEL
12W31	43-037-15847	14-20-603-246	SEC. 12, T41S, R23E	661' FNL;, 1981' FEL
13W24	43-037-15853	14-20-603-247	SEC. 13, T41S, R23E	SE/SW 660' FSL;3300'FEL
15W23	43-037-16412	14-20-603-355	SEC. 15, T41S, R24E	2140' FSL;1820' FWL
17-24	43-037-31044	14-20-603-353	SEC. 17, T41S, R24E	SE/SW 720' FSL; 1980' FWL
18-13	43-037-15734	14-20-603-353	SEC. 18, T41S, R24E	NW/NW 1980' FSL;500' FWL
18W32	43-037-15736	14-20-603-353	SEC. 18, T41S, R24E	SW/NE2140'FNL;1830' FEL
20-68	43-037-31591	14-20-603-353	SEC. 20, T41S, R24E	NW/SW 1276' FWL;1615' FSL
21-23	43-037-13754	14-20-603-355	SEC. 21, T41S, R24E	NE/SW 1740 FSL 1740 FWL
28W21	43-037-16431	14-20-603-409	SEC.29, T41S, R24E	660' FNL; 2022' FWL

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

JUN 23 1994
DIV. OF OIL, GAS & MINING

5. Lease Designation and Serial No.: 14-20-603-353

6. If Indian, Allottee or Tribe Name: Navajo

7. If Unit or CA, Agreement Designation: Ratherford

1. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.: RU 20-14

2. Name of Operator: MEPUS for MPT&NM and MEPNA* (915) 688-2114

9. API Well No.: 43-037-15747

3. Address and Telephone No.: P.O. Box 633, Midland, Tx. 79702 Attn: Glen Cox

10. Field and Pool, or Exploratory Area: Greater Aneth

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Surface: SWSW 20-41s-24e
BHL: N/A

11. County or Parish, State: San Juan, Ut.

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
☑ Notice of Intent	☐ Abandonment	☐ Change of Plans
☐ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☑ Other Pipeline	☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

*Mobil Exploration & Producing U. S. Inc. as agent for Mobil Producing Texas & New Mexico Inc. and Mobil Exploration & Producing North America Inc.

Will bury water injection pipeline ≈30" deep. (Application to convert well will be filed separately.) Pipeline will be ≈30' long and run north from well to an existing injection pipeline inside pad anchor. All in unit. All on Navajo Tribal Trust. All sites avoided.

Pipeline will be ≈3-1/2" OD coiled steel tubing. Wall thickness is 0.190". Pipe rated to API5LX42. Maximum operating pressure will be ≈500 psi. Hydrotested to ≈5800 psi. Burst pressure is ≈7200 psi. Tubing will be unreeled from spool mounted on bulldozer.

cc: BIA, BLM, Cox, UDOGM

14. I hereby certify that the foregoing is true and correct

Signed Brian Wood Title Consultant Date 6-20-94

Accepted by the Utah Division of Oil, Gas and Mining

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____

Conditions of approval, if any:

FOR RECORD ONLY

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side

Form 3160-3
(July 1992)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK
DRILL ☐ DEEPEN ☐

b. TYPE OF WELL
OIL WELL [X] GAS WELL ☐ OTHER SINGLE ZONE [X] MULTIPLE ZONE ☐

2. NAME OF OPERATOR
MOBIL EXPLORATION & PRODUCING U.S. INC

3. ADDRESS AND TELEPHONE NO.
P. O. BOX 633, MIDLAND, TEXAS 79702 **915-688-2585**

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface
660' FSL, 660'FWL
At proposed prod. zone
SAME

5. LEASE DESIGNATION AND SERIAL NO.
14-20-603-353

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
NAVAJO TRIBAL

7. UNIT AGREEMENT NAME
RATHERFORD UNIT

8. FARM OR LEASE NAME, WELL NO.
RATHERFORD UN 20-14

9. API WELL NO.
43-037-15747

10. FIELD AND POOL, OR WILDCAT
GREATER ANETH

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
SEC.20, T41S, R24E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
5 MILES SSE OF MONTEZUMA CREEK, UTAH

12. COUNTY OR PARISH **SAN JUAN** 13. STATE **UTAH**

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	19. PROPOSED DEPTH **HORIZONTAL**	20. ROTARY OR CABLE TOOLS

21. ELEVATIONS (Show whether DF,RT, GR, etc.)
GL 4858'

22. APPROX. DATE WORK WILL START*
07-25-94

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/4	13-3/8	27	170	175
11	8-5/8	24	1563	730
7-7/8	5-1/2	14	5825	550 CU. FT.

***** SEE ATTACHED PROCEDURE FOR HORIZONTAL RE-ENTRY *****

RECEIVED
JUL 19 1994
DIV. OF OIL, GAS & MINING

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.
SIGNED Shirley Todd TITLE ENV. & REG. TECHNICIAN DATE 07/14/94

(This space for Federal or State office use)

PERMIT NO. 43-037-15747 APPROVAL DATE

APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING
DATE: 7/28/94
BY:
WELL SPACING: R649-2-3

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY _____ TITLE _____ DATE _____

***See Instructions On Reverse Side**

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Ratherford Unit #20-14
Horizontal Drilling Procedure

The objective of this procedure is to prepare this wellbore for sidetracking, sidetrack the subject well and drill a short radius horizontal well with a 1000' lateral.

1. Prepare location and dig working pit.

2. MIRU DDPU (daylight workover rig), reverse unit and H2S equipment.

3. TOH and LD rods.

4. ND wellhead, release TAC, and NU BOPs.

5. TIH with 4 3/4" bit and casing scraper to PBTD. TOH with bit and scraper.

6. Attempt to load hole and establish an injection rate (if the injection pressure is > 500 psi, a packer should be run to establish an injection rate).

7. MIRU wireline truck. Run gauge ring and junk basket to PBTD. Run a gyro survey from PBTD to surface. Run and set a cement retainer ±5500'. RD wireline truck.

8. TIH with star guide @ ±5450'. Circulate until well is static and free of oil and gas. Sting into cement retainer and establish injection rate. Pressure annulus to 500 psi. Squeeze cement the existing Desert Creek perforations. Pull out of retainer leaving 1 bbl of cement on top of the retainer and reverse out. TOH with star guide laying down tubing.

9. TIH with 4 3/4" bit and drill collars picking up 2 7/8" 10.40 ppf E-75 AOH workstring. Drill cement retainer and cement to ±5773'. Circulate hole clean and them mud-up system until a yield point of 40-50 is obtained. TOH with bit.

10. TIH with 4 1/2" section mill dressed with cutter arms for 5 1/2" casing to 5610'. Mill section in casing from 5610' - 5640'. Circulate the hole clean and TOH with section mill.

11. TIH with 4 3/4" bit and clean out to ±5773'. Circulate hole clean and TOH with bit.

12. TIH with 10 jts 2 3/8" tubing on 2 7/8" DP to ±5773'. Circulate the well until static and free of oil and gas. Spot a balanced cement kick-off plug. TOH with workstring. WOC a minimum of 12 hours.

13. TIH and tag cement plug and re-spot plug if the top is to low. TOH and LD workstring . ND BOPs and NU wellhead. RDMO daylight workover rig.

14. MIRU 24 hour DDPU with drilling package. TIH with 4 3/4" MT bit, DCs, and 2 7/8", 10.4ppf, AOH drillpipe.

15. Dress off cement plug to the kick off point @ 5620'. Treat water and mud up with XC polymer and starch. POOH.

16. PU curve drilling assembly and TIH on 2 7/8" DP to PBTD.

17. RU power swivel and wireline. Latch into gyro tool and orient BHA.

18. Sidetrack wellbore using gyro orientation. Switch to Magnetic steering tool when free of magnetic interference from casing.

19. Drill curve section using steering tool for orientation. POOH and LD curve drilling motor.

20. PU lateral drilling motor and new bit.

21. TIH with lateral drilling assembly. Steer assembly as necessary with steering tool to reach target. Make bit trips as necessary. Circulate wellbore clean and POOH.

22. Complete well as per operations Engineering.

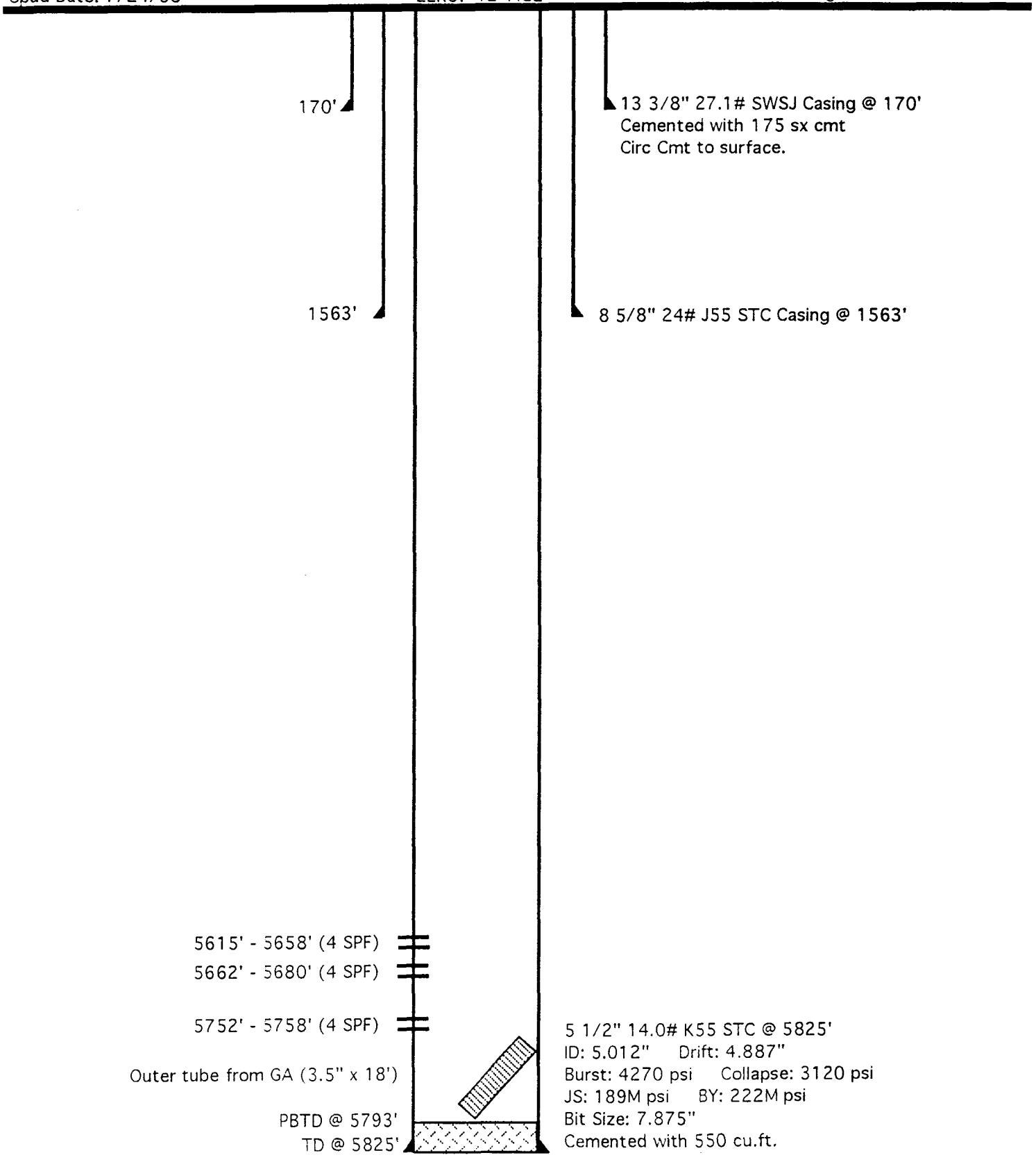
San Juan County, Utah
Sec 20, TWP 41S, RNG 24E
660' FWL & 660' FSL
5 miles SSE of Montezuma Creek, Utah

RATHERFORD UNIT No. 20-14
EXISTING WELLSKETCH

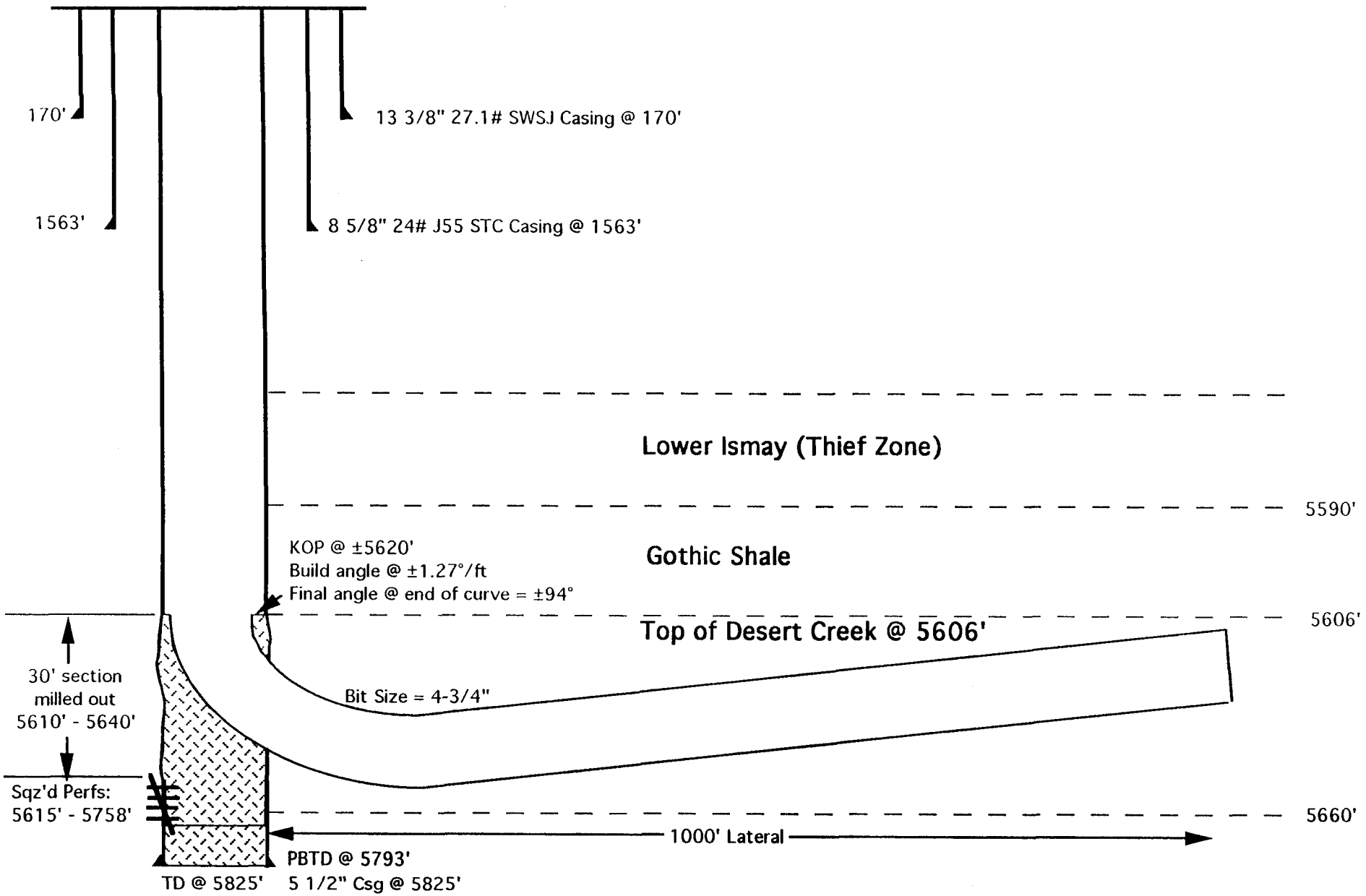
GL: 4858'
KB: 4870'
ZERO: 12' AGL

API No. 4303715747
Latitude: 37.202160285
Longitude: -109.3110504

Spud Date: 7/24/58



PROPOSED HORIZONTAL
RATHERFORD UNIT #20-14 WIW



WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 07/19/94

API NO. ASSIGNED: 43-037-15747

WELL NAME: RATHERFORD UNIT 20-14 RE-ENTRY
OPERATOR: MOBIL EXPL & PROD (N7370)

PROPOSED LOCATION:
SWSW 20 - T41S - R24E
SURFACE: 0660-FSL-0660-FWL
BOTTOM:
SAN JUAN COUNTY
GREATER ANETH FIELD (365)

LEASE TYPE: IND
LEASE NUMBER: 14-20-603-353

PROPOSED PRODUCING FORMATION: DSCR

INSPECT LOCATION BY: / /		
TECH REVIEW	Initials	Date
Engineering		
Geology		
Surface		

RECEIVED AND/OR REVIEWED:

N Plat
N Bond: Federal[] State[] Fee[]
(Number _____)
N Potash (Y/N)
N Oil shale (Y/N)
N Water permit
(Number _____)
N RDCC Review (Y/N)
(Date: _____)

LOCATION AND SITING:

✓ R649-2-3. Unit: UTU68931A

___ R649-3-2. General.

___ R649-3-3. Exception.

✓ Drilling Unit.
Board Cause no: ~~17~~
Date: ~~2-24-60~~

COMMENTS: MULTI POINT SURVEY & BHL PLAT SHOULD BE REQUESTED.

STIPULATIONS:
1. Directional Drlg.

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
James W. Carter
Division Director

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340
801-359-3940 (Fax)
801-538-5319 (TDD)

July 28, 1994

Mobil Exploration & Producing U.S. Inc.
P.O. Box 633
Midland, Texas 79702

Re: Ratherford Unit 20-14 Well, 660' FSL, 660' FWL, SW SW, Sec. 20, T. 41 S., R. 24 E., San Juan County, Utah

Gentlemen:

Pursuant to Utah Code Ann.§ 40-6-18, (1953, as amended), Utah Admin. R. 649-2-3, Application of Rules to Unit Agreements and R. 649-3-4, Permitting of Wells to be Drilled, Deepened or Plugged-Back, approval to drill the referenced well is hereby granted.

In addition, the following specific actions are necessary to fully comply with this approval:

1. In accordance with Utah Admin. R. 649-3-11, Directional Drilling, submittal of a complete angular deviation and directional survey report is required.

2. Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules.

3. Notification to the Division within 24 hours after drilling operations commence.

4. Submittal of Entity Action Form, Form 6, within five working days following commencement of drilling operations and whenever a change in operations or interests necessitates an entity status change.

5. Submittal of the Report of Water Encountered During Drilling, Form 7.

6. Prompt notification prior to commencing operations, if necessary, to plug and abandon the well. Notify Frank R. Matthews, Petroleum Engineer, (Office) (801)538-5340, (Home) (801)476-8613, or K. Michael Hebertson, Reclamation Specialist, (Home) (801)269-9212.

7. Compliance with the requirements of Utah Admin. R. 649-3-20, Gas Flaring or Venting, if the well is completed for production.

This approval shall expire one year after date of issuance unless substantial and continuous operation is underway or a request for an extension is made prior to the approval expiration date. The API number assigned to this well is 43-037-15747.

Sincerely,

R.J. Firth
Associate Director

ldc
Enclosures
cc: San Juan County Assessor
Bureau of Land Management, Moab District Office
WOI1

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

NAME OF COMPANY: MOBIL OIL CO.

WELL NAME: REATHERFORD UNIT 20-14 (RE-ENTRY)

API NO. 43-037-15747

Section 20 Township 41S Range 24E County SAN JUAN

Drilling Contractor WORKOVER RIG

Rig #_____

SPUDDED: Date 8/1/94

Time_____

How ROTARY

Drilling will commence_____

Reported by STEVE MUMCIL

Telephone #_____

Date 8/1/94 SIGNED JLT

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCT 1 4 1994

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT - " for such proposals

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No.
14-20-0603-353

6. If Indian, Allottee or Tribe Name
NAVAJO TRIBAL

7. If Unit or CA, Agreement Designation
RATHERFORD UNIT

1. Type of Well
[X] Oil Well [ ] Gas Well [ ] Other

8. Well Name and No.
RATHERFORD UNIT 20-14

2. Name of Operator
Mobil Exploration & Producing U.S. Inc.
as Agent for Mobil Producing TX & NM Inc.

9. API Well No.
43-037-15747

3. Address and Telephone No.
P.O. Box 633, Midland, TX 79702 (915) 688-2585

10. Field and Pool, or exploratory Area
GREATER ANETH

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
660' FSL, 660' FWL; SEC.20, T41S, R24E

11. County or Parish, State
SAN JUAN UT

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
[ ] Notice of Intent	[ ] Abandonment	[ ] Change of Plans
[X] Subsequent Report	[ ] Recompletion	[ ] New Construction
[ ] Final Abandonment Notice	[ ] Plugging Back	[ ] Non-Routine Fracturing
	[ ] Casing Repair	[ ] Water Shut-Off
	[ ] Altering Casing	[ ] Conversion to Injection
	[ ] Other SIDETRACK	[ ] Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

07/28/94 MIRU. UNSEAT PUMP; POOH W/RODS & PUMP.
07/29/94 ND WELLHEAD, NU BOP. POOH W/TBG. RIH TO 5768' & STOPPED.
08/01/94 SET CMT RET @ 5481. LOAD ANNULUS W/80 BBLS FWTR & PRESS TEST TO 500# - OK. LOADED TBG W/ 28 BBLS FWTR & TEST TO 3000# - OK. STUNG INTO RET @ 5481'. SQZD PERFS 5615 - 5758' W/10,000 GALS MATROL + 150 SX "G" + 10% CAL-SEAL + 3% HALAD 344 + .2% CFR3 (31 BBLS OF 158#/GAL SLURRY) & TAILED W/75 SX "G" + 2 PPS MICRO-BOND + .15% HALAD 322 + .1% CFR3 (16 BBLS 15.6#/GAL SLURRY). SQZD OFF @ 800# & PULLED OUT OF RET @ & REV CIRC OUT 5 BBLS OF CMT.
08/02/94 DRILL OUT CMT TO CMT RET. CIRC CLEAN.
08/03/94 DRILL OUT CMT RET & CMT @5481'. CIRC. CLEAN. CONT DRLG CMT TO 5768'. CIRC CLEAN. PRESS TEST @ 500# PSI, LOST 400# IN 10 MIN.
08/04/94 RUN GR/CCL LOG FROM PBTD 5774-5000' (CORRELATED W/WELEX RADIOACTIVITY LOG (8-23-58) TAKE 100' READINGS F/SURFACE TO 5650'. @ 5750' HORIZ DISPL=31.682, CLOSURE DIR= 336.887.
08/08/94 CUT WINDOW F/5614-5642.5.
08/10/94 CIRC CLEAN. PREP TO SET KICKOFF PLUG.
08/11/94 DISP HOLE W/FW @ 5754'. SPOT 55 SX CL G-2.5#/SX MICROBOND - .5% CFR-3 - 1.03 YLD-

(CONT'D ON BACK)

14. I hereby certify that the foregoing is true and correct
Signed D. Doin for Shirley Todd Title ENV. & REG. TECHNICIAN Date 09/23/94

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCT 1 4

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT - " for such proposals

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No.
14-20-0603-353

6. If Indian, Allottee or Tribe Name
NAVAJO TRIBAL

7. If Unit or CA, Agreement Designation
RATHERFORD UNIT

1. Type of Well
[X] Oil Well [ ] Gas Well [ ] Other

8. Well Name and No.
RATHERFORD UNIT 20-14

2. Name of Operator
Mobil Exploration & Producing U.S. Inc.
as Agent for Mobil Producing TX & NM Inc.

9. API Well No.
43-037-15747

3. Address and Telephone No.
P.O. Box 633, Midland, TX 79702 (915) 688-2585

10. Field and Pool, or exploratory Area
GREATER ANETH

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
660' FSL, 660' FWL; SEC.20, T41S, R24E

11. County or Parish, State
SAN JUAN UT

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
[ ] Notice of Intent	[ ] Abandonment	[ ] Change of Plans
[X] Subsequent Report	[ ] Recompletion	[ ] New Construction
[ ] Final Abandonment Notice	[ ] Plugging Back	[ ] Non-Routine Fracturing
	[ ] Casing Repair	[ ] Water Shut-Off
	[ ] Altering Casing	[ ] Conversion to Injection
	[ ] Other **SIDETRACK**	[ ] Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

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08/11/94 DISP HOLE W/FW @ 5754'. SPOT 55 SX CL G-2.5#/SX MICROBOND - .5% CFR-3 - 1.03 YLD-

(CONT'D ON BACK)

14. I hereby certify that the foregoing is true and correct
Signed D. Doiron for Shirley Todd Title ENV. & REG. TECHNICIAN Date 09/23/94

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____
Conditions of approval, if any:

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DTS

Form 3160-4
(July 1992)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE* (See other instructions on reverse side)

OCT 14 1994

FORM APPROVED
OMB NO. 1004-0137
Expires: February 28, 1995

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

5. LEASE DESIGNATION AND SERIAL NO.: 14-20-0603-353

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: NAVAJO TRIBAL

7. UNIT AGREEMENT NAME: RATHERFORD UNIT

8. FARM OR LEASE NAME, WELL NO.: RATHERFORD 20-14

1a. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] DRY [ ] Other

b. TYPE OF COMPLETION: NEW WELL [ ] WORK OVER [X] DEEP-EN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] Other SIDETRACK

2. NAME OF OPERATOR: Mobil Exploration & Producing U.S. Inc. as Agent for Mobil Producing TX & NM Inc. RE-ENTRY 2 different PZ

9. API WELL NO.: 43-037-15747

3. ADDRESS AND TELEPHONE NO.: P.O. Box 633, Midland, TX 79702 (915) 688-2585

10. FIELD AND POOL, OR WILDCAT: GREATER ANETH

4. LOCATION OF WELL *(Report location clearly and in accordance with any State requirements)**
At surface: 660' FWL, 660' FSL
At top prod. interval reported below
At total depth: BHL 620 FNL - 436 FEL

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: SEC 20, T41S, R24E

14. PERMIT NO.	DATE ISSUED	12. COUNTY OR PARISH	13. STATE
43-037-15747		SAN JUAN	UT

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. *(Ready to prod.)*	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
N/A 8-1-94	09/06/94	09/27/94	GR 4858'	

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
6400'/5825'	6380'/5825'	NO	→	X	

24. PRODUCING INTERVAL(S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)*: 5620-5668' LATERAL SECTION 744' (DSCR)

25. WAS DIRECTIONAL SURVEY MADE: YES

26. TYPE ELECTRIC AND OTHER LOGS RUN: GR/CCL, GR/NEUTRON

27. WAS WELL CORED: NO

28. CASING RECORD *(Report all strings set in well)*

CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
13-3/8"	27.1#	170'		175 SX TO SURFACE	
8-5/8"	24#	1563'		730 SX CL B	
5-1/2"	15.5 & 14#	5825'		550 CU FT CL B	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2-7/8"	5734'	

31. PERFORATION RECORD *(Interval, size and number)*
5724-6480 OHZ

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
5481'	CMT RET
5615-5758'	SQZ DESERT CREEK PERF WITH
	10,000 GALS MATROL (HE
	(SEE OTHER SIDE TO CONTINUE)

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD *(Flowing, gas lift, pumping - size and type of pump)*	WELL STATUS *(Producing or shut-in)*
		POW ?

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD →	OIL - BBL.	GAS - MCF.	WATER - BBL.	GAS - OIL RATIO
10/19/94	24 hr.			224	124	33	554

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL - BBL.	GAS - MCF.	WATER - BBL.	OIL GRAVITY - API (CORR.)
32	28					

34. DISPOSITION OF GAS *(Sold, used for fuel, vented, etc.)*

TEST WITNESSED BY

35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED D. Dix for Shirley Todd TITLE ENV. & REG. TECHNICIAN DATE 10/10/94

*(See Instructions and Spaces for Additional Data on Reverse Side)

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
			POLYMER) + 150 SX G (31 BBL OF 15.8# GAL (SLURRY). TAILED W/75 SX G (16 BBLS OF 15.6#/GAL SLURRY).
		5754'	KOP (KICK OFF POINT) SPOT 55 SX CL G (1.03 YLD - 17 #/GAL)
		6384-5814'	ACDZ W/10,000 GALS 15% NEFE HCL

38. GEOLOGIC MARKERS

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH

U.S. GOVERNMENT PRINTING OFFICE: 1992-774-672

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

ENTITY ACTION FORM - FORM 6

OPERATOR MEPNA

OPERATOR ACCT. NO. N 7370

ADDRESS

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION QQ	SC	TP	RG	COUNTY	SPUD DATE	EFFECTIVE DATE
E	99999	06280	43-037-15747	RATHERFORD UNIT 20-14(REENTRY)	SWSW	20	41S	24E	SAN JUAN	8-1-94	9-27-94

WELL 1 COMMENTS: *REENTRY;DIRECTIONAL DRL "RATHERFORD UNIT";NEW ENTITY ASSIGNMENT NOT NECESSARY.

WELL 2 COMMENTS:

WELL 3 COMMENTS:

WELL 4 COMMENTS:

WELL 5 COMMENTS:

ACTION CODES (See instructions on back of form)
- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (explain in comments section)

NOTE: Use COMMENT section to explain why each Action Code was selected.

(3/89)

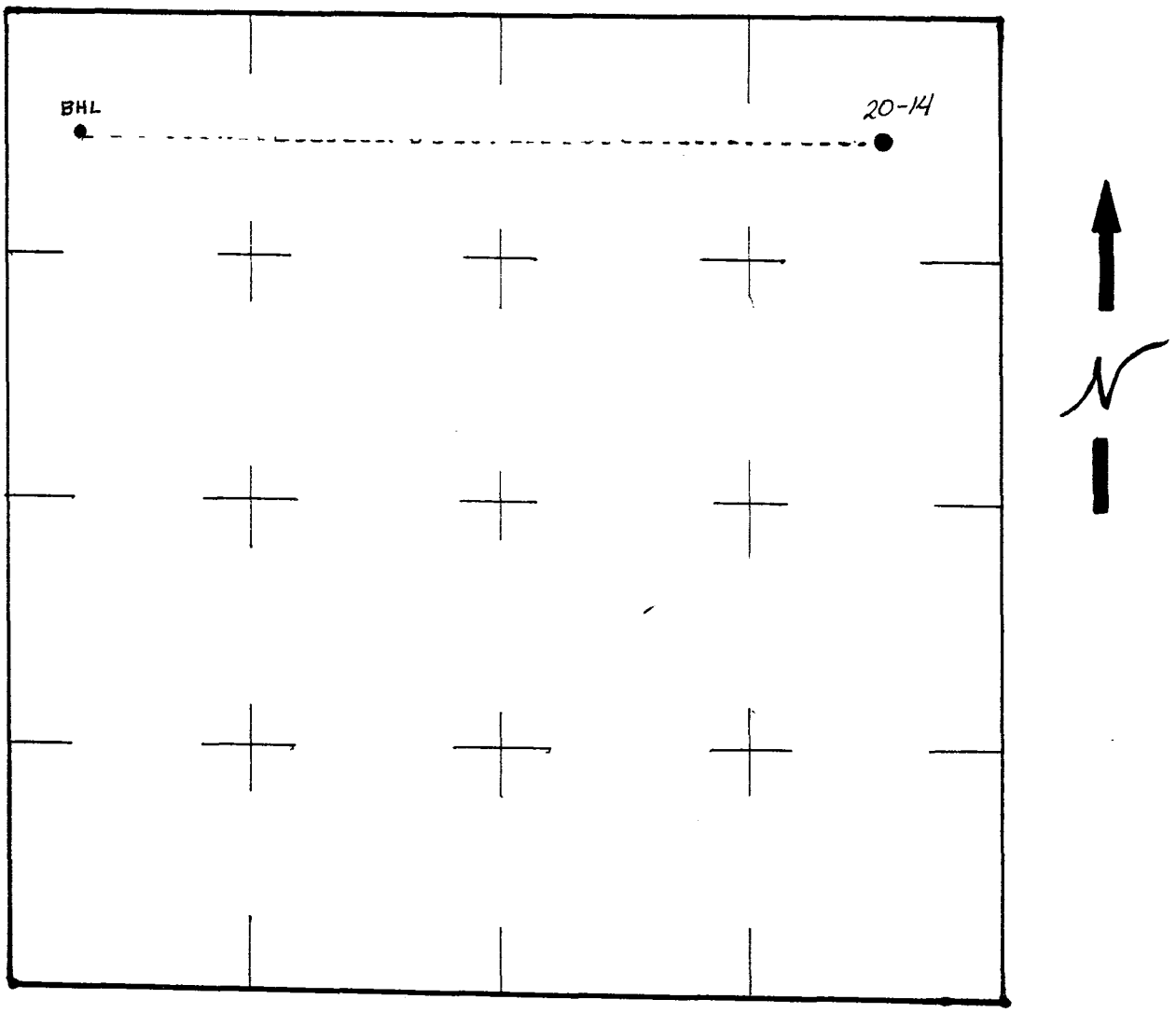
L. CORDOVA (DOGM)
Signature

ADMIN. ANALYST
Title

10-17-94
Date

Phone No. ( )

MOBIL EXPLORATION & PRODUCING U.S. INC.
as Agent for MEPNA & Mobil Oil Corp.



RATHERFORD UNIT #20-14 43-037-15747
Sec.20, T41S, R24E
660' FWL, 660 FSL
BHL 620' FNL, 436'FEL

Scale 1" = 1,000'

< BECFIELD SURVEY & TARGET TRACKING PROGRAM >

OPERATOR: Mobil Oil
WELL: Ratherford #20-14
LOCATION: San Juan County, Utah

START: 8/24/94
FINISH: 8/24/94
BECFIELD DIR.COORDINATOR
Eddie Pruett
Jeff Myers

Survey number 0 is a Tie-In to a GYRO
Scientific Drilling International.

< >

MINIMUM CURVATURE CALCULATIONS(SPE-3362) PROPOSED DIRECTION 313

SUR NUM	MD	INC	TRUE AZM	TVD	N-S	E-W	SECT	DLS/ 100
0	5600.00	0.50	357.20	5599.8	28.3	-11.8	27.9	0.0
1	5620.00	1.70	9.20	5619.8	28.7	-11.8	28.2	6.1
2	5622.00	2.00	4.70	5621.8	28.7	-11.7	28.2	16.7
3	5624.00	2.80	4.30	5623.8	28.8	-11.7	28.2	40.0
4	5626.00	4.00	2.00	5625.8	28.9	-11.7	28.3	60.4
5	5628.00	5.30	357.60	5627.8	29.1	-11.7	28.4	67.4
6	5630.00	7.90	353.10	5629.8	29.3	-11.8	28.6	132.4
7	5632.00	9.90	351.80	5631.7	29.6	-11.8	28.8	100.5
8	5634.00	12.20	350.40	5633.7	30.0	-11.9	29.1	115.8
9	5636.00	14.70	350.50	5635.7	30.5	-11.9	29.5	125.0
10	5638.00	17.30	350.00	5637.6	31.0	-12.0	30.0	130.2
11	5640.00	20.00	349.50	5639.5	31.7	-12.1	30.5	135.2
12	5642.00	23.00	349.00	5641.3	32.4	-12.3	31.1	150.3
13	5644.00	26.00	348.50	5643.2	33.2	-12.4	31.7	150.4
14	5646.00	28.80	348.00	5644.9	34.1	-12.6	32.5	140.5
15	5648.00	31.80	347.50	5646.7	35.1	-12.8	33.3	150.5
16	5650.00	34.40	347.10	5648.3	36.1	-13.1	34.2	130.5
17	5652.00	34.90	347.00	5650.0	37.2	-13.3	35.2	25.2
18	5654.00	37.60	346.50	5651.6	38.4	-13.6	36.1	135.8
19	5656.00	40.40	346.20	5653.1	39.6	-13.9	37.2	140.3
20	5658.00	43.50	345.80	5654.6	40.9	-14.2	38.3	155.6
21	5660.00	46.10	345.40	5656.0	42.3	-14.6	39.5	130.8
22	5662.00	49.00	345.10	5657.4	43.7	-15.0	40.7	145.4
23	5664.00	52.00	344.70	5658.7	45.2	-15.4	42.1	150.8
24	5666.00	54.80	344.30	5659.9	46.7	-15.8	43.4	140.9
25	5668.00	57.10	344.00	5661.0	48.3	-16.2	44.8	115.7
26	5670.00	60.10	343.80	5662.0	50.0	-16.7	46.3	150.2
27	5672.00	62.60	343.50	5663.0	51.7	-17.2	47.8	125.7
28	5674.00	65.00	343.20	5663.9	53.4	-17.7	49.4	120.8
29	5676.00	67.50	342.90	5664.7	55.1	-18.3	51.0	125.8
30	5678.00	70.20	342.70	5665.4	56.9	-18.8	52.6	135.3
31	5680.00	73.20	342.40	5666.0	58.7	-19.4	54.2	150.7
32	5682.00	75.20	342.10	5666.6	60.6	-20.0	55.9	101.0
33	5684.00	77.90	341.80	5667.0	62.4	-20.6	57.6	135.8
34	5686.00	80.20	341.40	5667.4	64.3	-21.2	59.3	116.7
35	5688.00	82.50	340.90	5667.7	66.1	-21.8	61.1	117.6

BECFIELD SURVEY & TARGET TRACKING PROGRAM

OPERATOR: Mobil Oil
WELL: Ratherford #20-14
LOCATION: San Juan County, Utah

START: 8/24/94
FINISH: 8/24/94
BECFIELD DIR.COORDINATOR
Eddie Pruett
Jeff Myers

Survey number 0 is a Tie-In to a GYRO
Scientific Drilling International.

MINIMUM CURVATURE CALCULATIONS(SPE-3362)

PROPOSED DIRECTION 313

SUR NUM	MD	INC	TRUE AZM	TVD	N-S	E-W	SECT	DLS/ 100
36	5690.00	84.80	340.70	5667.9	68.0	-22.5	62.8	115.4
37	5692.00	86.60	340.30	5668.1	69.9	-23.1	64.6	92.2
38	5694.00	88.50	339.90	5668.2	71.8	-23.8	66.4	97.1
39	5699.00	91.00	339.20	5668.2	76.5	-25.6	70.9	51.9
40	5704.00	91.50	338.90	5668.1	81.1	-27.4	75.3	11.7
41	5709.00	91.60	338.70	5667.9	85.8	-29.2	79.8	4.5
42	5714.00	90.10	338.50	5667.9	90.4	-31.0	84.3	30.3
43	5719.00	89.10	338.40	5667.90	95.1	-32.8	88.9	20.1
44	5724.00	88.60	338.10	5668.00	99.74	-34.68	93.39	11.66
45	5729.00	88.80	337.80	5668.12	104.37	-36.56	97.92	7.21
46	5734.00	89.60	337.30	5668.19	108.99	-38.47	102.47	18.87
47	5739.00	90.50	336.70	5668.18	113.60	-40.42	107.03	21.63
48	5744.00	91.30	336.30	5668.10	118.18	-42.41	111.62	17.89
49	5749.00	92.20	336.00	5667.95	122.75	-44.43	116.21	18.97
50	5754.00	93.00	335.80	5667.73	127.31	-46.47	120.81	16.49
51	5759.00	93.60	335.70	5667.44	131.86	-48.52	125.42	12.16
52	5764.00	94.00	335.50	5667.11	136.41	-50.58	130.02	8.94
53	5769.00	94.50	335.30	5666.74	140.94	-52.66	134.63	10.77
54	5774.00	95.20	334.90	5666.31	145.46	-54.76	139.25	16.11
55	5779.00	95.90	334.50	5665.83	149.96	-56.88	143.87	16.11
56	5784.00	96.50	334.20	5665.29	154.44	-59.04	148.50	13.40
57	5789.00	96.80	333.90	5664.71	158.90	-61.21	153.14	8.46
58	5794.00	96.80	333.50	5664.12	163.35	-63.41	157.78	7.94
59	5799.00	97.00	332.90	5663.52	167.79	-65.65	162.44	12.57
60	5804.00	97.10	333.00	5662.90	172.20	-67.90	167.11	2.82
61	5809.00	97.20	333.10	5662.28	176.63	-70.15	171.77	2.82
62	5814.00	97.20	333.20	5661.65	181.05	-72.39	176.42	1.98
63	5819.00	97.20	333.20	5661.03	185.48	-74.63	181.08	0.00
64	5824.00	97.10	332.90	5660.41	189.90	-76.88	185.74	6.28
65	5834.00	96.90	331.70	5659.19	198.69	-81.49	195.11	12.08
66	5844.00	97.00	330.70	5657.98	207.39	-86.27	204.54	9.98
67	5854.00	97.20	330.20	5656.74	216.02	-91.17	214.00	5.35
68	5864.00	97.90	329.70	5655.43	224.60	-96.13	223.48	8.58
69	5874.00	99.70	328.10	5653.90	233.06	-101.24	232.99	23.96
70	5884.00	100.60	326.90	5652.13	241.37	-106.52	242.52	14.85
71	5894.00	100.00	326.50	5650.35	249.59	-111.93	252.08	7.18

< BECFIELD SURVEY & TARGET TRACKING PROGRAM >

OPERATOR: Mobil Oil
WELL: Ratherford #20-14
LOCATION: San Juan County, Utah

START: 8/24/94
FINISH: 8/24/94
BECFIELD DIR.COORDINATOR
Eddie Pruett
Jeff Myers

Survey number 0 is a Tie-In to a GYRO
Scientific Drilling International.

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MINIMUM CURVATURE CALCULATIONS(SPE-3362) PROPOSED DIRECTION 313

SUR NUM	MD	INC	TRUE AZM	TVD	N-S	E-W	SECT	DLS/ 100
72	5904.00	99.80	326.50	5648.63	257.80	-117.36	261.66	2.00
73	5914.00	99.70	326.40	5646.93	266.02	-122.81	271.24	1.40
74	5924.00	98.80	325.90	5645.33	274.21	-128.31	280.85	10.26
75	5934.00	98.10	325.40	5643.86	282.38	-133.89	290.50	8.57
76	5944.00	97.30	324.90	5642.52	290.51	-139.55	300.19	9.41
77	5954.00	97.20	324.90	5641.26	298.63	-145.26	309.90	1.00
78	5964.00	97.70	325.00	5639.96	306.75	-150.95	319.60	5.10
79	5974.00	98.40	325.20	5638.56	314.87	-156.61	329.28	7.27
80	5984.00	99.60	325.80	5636.99	323.01	-162.21	338.92	13.38
81	5994.00	101.00	326.20	5635.21	331.16	-167.71	348.51	14.54
82	6004.00	103.10	326.80	5633.12	339.32	-173.11	358.02	21.80
83	6014.00	105.60	327.80	5630.64	347.47	-178.34	367.40	26.81
84	6024.00	107.40	327.70	5627.80	355.58	-183.46	376.68	18.03
85	6034.00	107.70	328.40	5624.78	363.67	-188.50	385.88	7.32
86	6044.00	106.90	329.00	5621.81	371.83	-193.46	395.08	9.84
87	6054.00	103.10	328.40	5619.22	380.08	-198.48	404.37	38.44
88	6064.00	98.00	326.70	5617.39	388.37	-203.76	413.89	53.67
89	6074.00	92.60		5616.44	397.77	-206.55	422.35	335.78
90	6084.00	90.10	323.30	5616.20	407.10	-209.65	430.97	367.72
91	6094.00	88.90	323.20	5616.29	415.11	-215.63	440.81	12.04
92	6104.00	87.60	322.70	5616.59	423.09	-221.65	450.65	13.93
93	6114.00	86.00	321.80	5617.15	430.98	-227.77	460.51	18.35
94	6124.00	84.40	321.00	5617.99	438.77	-233.98	470.37	17.88
95	6134.00	83.20	320.70	5619.07	446.48	-240.26	480.21	12.37
96	6144.00	82.20	319.70	5620.34	454.10	-246.61	490.05	14.08
97	6154.00	82.00	319.40	5621.71	461.64	-253.04	499.89	3.58
98	6164.00	82.10	319.20	5623.09	469.15	-259.49	509.74	2.22
99	6174.00	82.20	319.30	5624.46	476.65	-265.96	519.59	1.41
100	6184.00	81.40	319.20	5625.89	484.15	-272.42	529.43	8.06
101	6194.00	80.50	318.40	5627.46	491.58	-278.93	539.25	11.98
102	6204.00	80.00	318.40	5629.15	498.95	-285.47	549.06	5.00
103	6214.00	79.40	318.00	5630.94	506.28	-292.03	558.86	7.18
104	6224.00	79.40	317.60	5632.78	513.57	-298.63	568.65	3.93
105	6234.00	79.60	314.00	5634.60	520.61	-305.48	578.47	35.45
106	6244.00	79.80	313.20	5636.39	527.40	-312.61	588.31	8.12
107	6254.00	80.20	312.50	5638.13	534.10	-319.83	598.16	7.97

< BECFIELD SURVEY & TARGET TRACKING PROGRAM >

OPERATOR: Mobil Oil
WELL: Ratherford #20-14
LOCATION: San Juan County, Utah

START: 8/24/94
FINISH: 8/24/94
BECFIELD DIR.COORDINATOR
Eddie Pruett
Jeff Myers

Survey number 0 is a Tie-In to a GYRO
Scientific Drilling International.

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MINIMUM CURVATURE CALCULATIONS(SPE-3362) PROPOSED DIRECTION 313

SUR NUM	MD	INC	TRUE AZM	TVD	N-S	E-W	SECT	DLS/ 100
108	6264.00	80.80	311.00	5639.78	540.66	-327.19	608.02	15.96
109	6274.00	81.30	309.10	5641.33	547.02	-334.75	617.89	19.42
110	6284.00	81.40	307.80	5642.84	553.17	-342.49	627.74	12.89
111	6294.00	80.20	307.00	5644.44	559.16	-350.33	637.56	14.37
112	6304.00	79.60	306.70	5646.19	565.07	-358.21	647.35	6.69
113	6314.00	79.60	308.30	5648.00	571.05	-366.01	657.14	15.74
114	6324.00	82.50	308.70	5649.55	577.20	-373.74	666.99	29.27
115	6334.00	87.80	308.60	5650.40	583.42	-381.52	676.92	53.01
116	6344.00	89.30	308.70	5650.65	589.67	-389.33	686.89	15.03
117	6354.00	90.00	304.60	5650.71	595.64	-397.35	696.83	41.59
118	6364.00	92.20	304.00	5650.52	601.27	-405.61	706.71	22.80
119	6374.00	95.50	302.50	5649.85	606.74	-413.95	716.54	36.23
120	6400.00	98.00	300.00	5646.79	620.13	-436.02	741.81	13.55

Survey No.'s 1 thru 119 Tensor All-Angle Steering Tool Records.
Survey No. 120 is a projection to bit-depth.
Bottom Hole location from Surface Location.
Horizontal Displacement = 759.33 feet
Displacement Bearing = North 35.6 West (TRUE)

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
MAY 3 1995
DIV. OF OIL, GAS & MINING

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT - " for such proposals

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No.
14-20-0603-353

6. If Indian, Allottee or Tribe Name
NAVAJO TRIBAL

7. If Unit or CA, Agreement Designation
RATHERFORD UNIT

1. Type of Well
[ ] Oil Well [ ] Gas Well [X] Other INJECTOR

8. Well Name and No.
RATHERFORD 20-14

2. Name of Operator
Mobil Exploration & Producing U.S. Inc.
as Agent for Mobil Producing TX & NM Inc.

9. API Well No.
43-037-15747

3. Address and Telephone No.
P.O. Box 633, Midland, TX 79702 (915) 688-2585

10. Field and Pool, or exploratory Area
GREATER ANETH

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
660' FSL, 660' FWL; SEC.20, T41S, R24E
BHL - 618 FNL, 442 FWL

11. County or Parish, State
SAN JUAN UT

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
[X] Notice of Intent	[ ] Abandonment	[ ] Change of Plans
[ ] Subsequent Report	[ ] Recompletion	[ ] New Construction
[ ] Final Abandonment Notice	[ ] Plugging Back	[ ] Non-Routine Fracturing
	[ ] Casing Repair	[ ] Water Shut-Off
	[ ] Altering Casing	[X] Conversion to Injection
	[ ] Other _____	[ ] Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

WORK WILL COMMENCE UPON APPROVAL OF AREA WIDE PERMIT APPROVAL.

SEE ATTACHMENT

14. I hereby certify that the foregoing is true and correct
Signed Shirley Robertson Title ENV. & REG. TECHNICIAN Date 4-27-95

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

* See Instruction on Reverse Side

Ratherford Unit 20-14
Injection Well Conversion

AFE # 4AD7

1. Lock and tag out all power sources. Clamp off polish rod. Remove horse head. RU pump and pump lines to casing annulus and kill well with lease water.

2. MI workover rig. ND pump tee. NU and PT BOP's. POH with sucker rods and rod pump laying down same. Release tubing anchor and POH standing back production tubing.

3. RIH with 4-3/4" rock bit without nozzles and casing scraper for 5-1/2", 14 lb/ft casing on 2-7/8" tubing to 5590'. POH.

4. RIH with squeeze packer on 2-7/8" tubing and set at 5580'. PT casing to 1000 psi. If PT fails, locate and squeeze casing leak using a RBP with sand dumped on top to isolate completion interval, and 100 sxs of class B cement containing 2 percent calcium chloride. Clean out cement and retest casing string to 1000 psi. Resqueeze as necessary. Wash sand off RBP and retrieve same. POH laying down workstring.

5. RIH with a Guiberson G-6 injection packer on new 2-7/8", 6.5 lb/ft J-55 KCTS (Threadmasters Torque Ring) Fluorolined Tubing to 5564'. Reverse circulate fresh water packer fluid containing 1 percent by volume of Tretolite CRW137 corrosion inhibitor/oxygen scavenger. Set packer at 5564'. PT backside to 1000 psi. ND BOP's. NU injection head (Ken Britton with Big Red Tool at 505/325-5045).

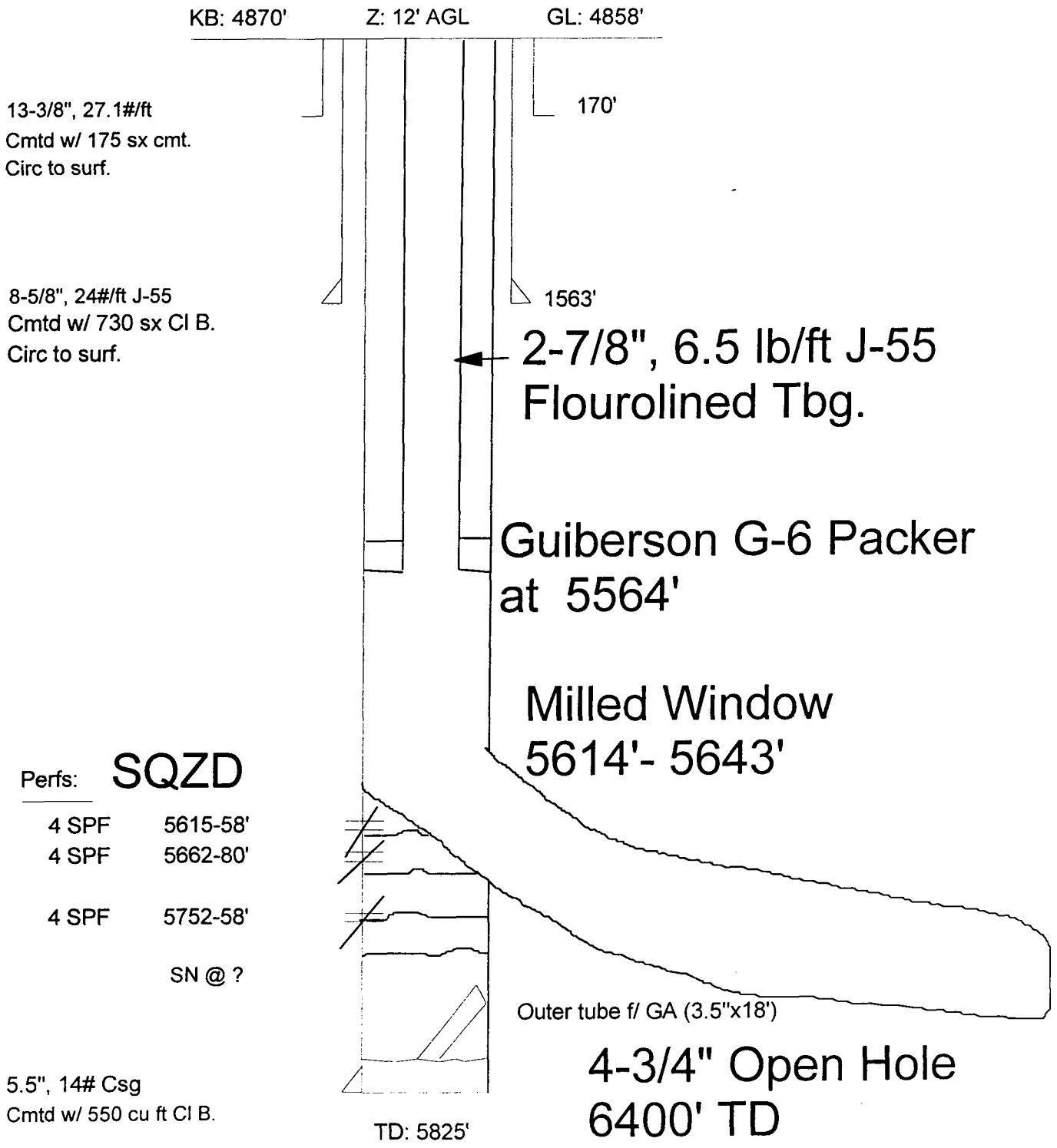
NOTE: A. All new KCTS tubing to be torque turned to 2250 ft-lbs (Tong Rentals at 512/668-9774). All connections of seal assembly and tubing to be made up using permiserts, permetek, and Baker Super B thread compound. Supervision of make-up/running KCTS tubing from Bill Allman with Permian Enterprises at 505/632-8702.

B. Rabbit tubing with 2.0" O.D. rabbit.

6. Perform Mechanical Integrity Test (MIT) for EPA. Contact Jim Walker of the Navajo EPA in Shiprock at 505/368-1040 to witness. Use chart recorder to record test. Send copies of chart to Shirley Todd, Midland - 1206 MOB, Ed Barber, Aneth, and Ratherford files. After obtaining an acceptable MIT, place well on water injection at 500 BWPD.

4AD7

Ratherford Unit 20-14
Proposed



Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
JUL 31 1995
DIV. OF OIL, GAS & MINING

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No.
14-20-603-353

6. If Indian, Allottee or Tribe Name
Navajo Tribal

7. If Unit or CA, Agreement Designation
Ratherford Unit

1. Type of Well
☐ Oil Well ☐ Gas Well ☒ Other Injector

8. Well Name and No.
20-14

2. Name of Operator
MOBIL OIL CORPORATION

9. API Well No.
43-037-15747

3. Address and Telephone No.
P.O. BOX 633, MIDLAND, TX 79702 (915)688-2585

10. Field and Pool, or Exploratory Area
Greater Aneth

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
660' FSL, 660' FWL
BHL 618' FNL, 442 FWL
Sec. 20, T41S, R24E

11. County or Parish, State
San Juan, Ut.

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
☐ Notice of Intent	☐ Abandonment	☐ Change of Plans
☒ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☐ Other Commenced injection	☐ Dispose Water

(Note: Report results of multiple completions on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Commenced injection on 7-14-95

14. I hereby certify that the foregoing is true and correct

Signed Shirley Robertson Title Env. & Reg Technician Date 7-27-95

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT - " for such proposals

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No.: 14-20-0603-353
6. If Indian, Allottee or Tribe Name: NAVAJO TRIBAL
7. If Unit or CA, Agreement Designation: RATHERFORD UNIT

1. Type of Well: [ ] Oil Well [ ] Gas Well [X] Other INJECTOR
8. Well Name and No.: RATHERFORD 20-14
2. Name of Operator: Mobil Exploration & Producing U.S. Inc. as Agent for Mobil Producing TX & NM Inc.
9. API Well No.: 43-037-15747
3. Address and Telephone No.: P.O. Box 633, Midland, TX 79702 915-688-2585
10. Field and Pool, or exploratory Area: GREATER ANETH
4. Location of Well (Footage, Sec., T., R., M., or Survey Description): 660' FSL, 660' FWL SEC. 20, T41S, R24E BHL 618' N, 442' W OF SURFACE LOCATION
11. County or Parish, State: SAN JUAN UT

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
[ ] Notice of Intent	[ ] Abandonment	[ ] Change of Plans
[X] Subsequent Report	[ ] Recompletion	[ ] New Construction
[ ] Final Abandonment Notice	[ ] Plugging Back	[ ] Non-Routine Fracturing
	[ ] Casing Repair	[ ] Water Shut-Off
	[ ] Altering Casing	[X] Conversion to Injection
	[ ] Other _____	[ ] Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

7-07-95 MIRU POOH W/TBG. RIH W/BIT & cs
7-08-95 LOAD CSG W/FW. PRESS TEST CSG TO 1000 PSI/30 MIN/OK.
7-10-95 CUT CSG HEAD OFF & ADD TO 5 1/2" CSG. 8 X 11 X 3000# DOUBLE STUDDED ADAPTOR, 11 X 3000# X 7 1/16" X 3000# CSG HEAD PRESS TEST CSG HEAD TO 1000#/30 MIN/OK.
7-11-95 RIH W/175 JTS 2 7/8" KCTS TBG. SET PKR AT 5562', FILL CSG W/PKR FLUID. PRESS TEST CSG TO 1000 PSI/30 MIN/OK. RDMO.

RECEIVED
SEP 05 1995
DIV. OF OIL, GAS & MINING

14. I hereby certify that the foregoing is true and correct
Signed Shirley Robertson Title ENV. & REG. TECHNICIAN Date 8-31-95

(This space for Federal or State office use)
Approved by _____ Title _____ Date Tax Credit 7/26/95
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

* See Instruction on Reverse Side

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT - " for such proposals

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No.: 14-20-0603-353
6. If Indian, Allottee or Tribe Name: NAVAJO TRIBAL
7. If Unit or CA, Agreement Designation: RATHERFORD UNIT

1. Type of Well: [ ] Oil Well [ ] Gas Well [X] Other INJECTOR
8. Well Name and No.: RATHERFORD 20-14
2. Name of Operator: Mobil Exploration & Producing U.S. Inc. as Agent for Mobil Producing TX & NM Inc.
9. API Well No.: 43-037-15747
3. Address and Telephone No.: P.O. Box 633, Midland, TX 79702 915-688-2585
10. Field and Pool, or exploratory Area: GREATER ANETH
4. Location of Well (Footage, Sec., T., R., M., or Survey Description): 660' FSL, 660' FWL SEC. 20, T41S, R24E BHL 618' N, 442' W OF SURFACE LOCATION
11. County or Parish, State: SAN JUAN UT

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
[ ] Notice of Intent	[ ] Abandonment	[ ] Change of Plans
[X] Subsequent Report	[ ] Recompletion	[ ] New Construction
[ ] Final Abandonment Notice	[ ] Plugging Back	[ ] Non-Routine Fracturing
	[ ] Casing Repair	[ ] Water Shut-Off
	[ ] Altering Casing	[X] Conversion to Injection
	[ ] Other _____	[ ] Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

7-07-95 MIRU POOH W/TBG. RIH W/BIT & cs
7-08-95 LOAD CSG W/FW. PRESS TEST CSG TO 1000 PSI/30 MIN/OK.
7-10-95 CUT CSG HEAD OFF & ADD TO 5 1/2" CSG. 8 X 11 X 3000# DOUBLE STUDDED ADAPTOR, 11 X 3000# X 7 1/16" X 3000# CSG HEAD PRESS TEST CSG HEAD TO 1000#/30 MIN/OK.
7-11-95 RIH W/175 JTS 2 7/8" KCTS TBG. SET PKR AT 5562', FILL CSG W/PKR FLUID. PRESS TEST CSG TO 1000 PSI/30 MIN/OK. RDMO.

RECEIVED
SEP 05 1995
DIV. OF OIL

14. I hereby certify that the foregoing is true and correct
Signed Shirley Robertson Title ENV. & REG. TECHNICIAN Date 8-31-95

(This space for Federal or State office use)
Approved by _____ Title _____ Date _____
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

* See Instruction on Reverse Side

Division of Oil, Gas and Mining

PHONE CONVERSATION DOCUMENTATION FORM

Route original/copy to:

[ ] Well File _____

_____

(Location) Sec___Twp___Rng___

(API No.) _____

[ ] Suspense

(Return Date) _____

(To - Initials) _____

XXX Other

OPER NM CHG

_____

_____

1. Date of Phone Call: 8-3-95 Time: _____

2. DOGM Employee (name) L. CORDOVA (Initiated Call [ ])

Talked to:

Name R. J. FIRTH (Initiated Call XX) - Phone No. ( )

of (Company/Organization) _____

3. Topic of Conversation: M E P N A / N7370

4. Highlights of Conversation:

OPERATOR NAME IS BEING CHANGED FROM M E P N A (MOBIL EXPLORATION AND PRODUCING NORTH AMERICA INC) TO MOBIL EXPLOR & PROD. THE NAME CHANGE IS BEING DONE AT THIS TIME TO ALLEVIATE CONFUSION, BOTH IN HOUSE AND AMONGST THE GENERAL PUBLIC.

*SUPERIOR OIL COMPANY MERGED INTO M E P N A 4-24-86 (SEE ATTACHED).

Division of Oil, Gas and Mining
OPERATOR CHANGE WORKSHEET

Routing:

1-LEC	7-PL
2-LWP	8-SJ
3-~~DTS~~	9-FILE
4-VLC	
5-RJF	
6-LWP	

Attach all documentation received by the division regarding this change.
Initial each listed item when completed. Write N/A if item is not applicable.

☐ Change of Operator (well sold) ☐ Designation of Agent
☐ Designation of Operator XXX Operator Name Change Only

The operator of the well(s) listed below has changed (EFFECTIVE DATE: **8-2-95**)

TO (new operator) **MOBIL EXPLOR & PROD**
(address) **C/O MOBIL OIL CORP**
PO DRAWER G
CORTEZ CO 81321
phone (**303**) **564-5212**
account no. **N7370**

FROM (former operator) **M E P N A**
(address) **C/O MOBIL OIL CORP**
PO DRAWER G
CORTEZ CO 81321
phone (**303**)**564-5212**
account no. **N7370**

Well(s) (attach additional page if needed):

Name: **** SEE ATTACHED ****	API: 037-15747	Entity:	Sec	Twp	Rng	Lease Type:
Name:	API:	Entity:	Sec	Twp	Rng	Lease Type:
Name:	API:	Entity:	Sec	Twp	Rng	Lease Type:
Name:	API:	Entity:	Sec	Twp	Rng	Lease Type:
Name:	API:	Entity:	Sec	Twp	Rng	Lease Type:
Name:	API:	Entity:	Sec	Twp	Rng	Lease Type:
Name:	API:	Entity:	Sec	Twp	Rng	Lease Type:

OPERATOR CHANGE DOCUMENTATION

N/A 1. (Rule R615-8-10) Sundry or other legal documentation has been received from former operator (Attach to this form).

N/A 2. (Rule R615-8-10) Sundry or other legal documentation has been received from new operator (Attach to this form).

N/A 3. The Department of Commerce has been contacted if the new operator above is not currently operating any wells in Utah. Is company registered with the state? (yes/no) _____ If yes, show company file number: _____.

N/A 4. **(For Indian and Federal Wells ONLY)** The BLM has been contacted regarding this change (attach Telephone Documentation Form to this report). Make note of BLM status in comments section of this form. Management review of **Federal and Indian** well operator changes should take place prior to completion of steps 5 through 9 below.

Lec 5. Changes have been entered in the Oil and Gas Information System (Wang/IBM) for each well listed above. (8-3-95)

LWP 6. Cardex file has been updated for each well listed above. 8-31-95

LWP 7. Well file labels have been updated for each well listed above. 9-28-95

Lec 8. Changes have been included on the monthly "Operator, Address, and Account Changes" memo for distribution to State Lands and the Tax Commission. (8395)

Lec 9. A folder has been set up for the Operator Change file, and a copy of this page has been placed there for reference during routing and processing of the original documents.

– OVER –

OPERATOR CHANGE WORKSHEET (CONTINUED) Initial each item when completed. Write N/A if item is not applicable.

ENTITY REVIEW

Lec 1. (Rule R615-8-7) Entity assignments have been reviewed for all wells listed above. Were entity changes made? (yes/no) ____ (If entity assignments were changed, attach copies of Form 6, Entity Action Form).

N/A 2. State Lands and the Tax Commission have been notified through normal procedures of entity changes.

BOND VERIFICATION (Fee wells only) * No Fee Lease Wells at this time!

N/A/Lec 1. (Rule R615-3-1) The new operator of any fee lease well listed above has furnished a proper bond.

___ 2. A copy of this form has been placed in the new and former operators' bond files.

___ 3. The former operator has requested a release of liability from their bond (yes/no) ___. Today's date _____ 19___. If yes, division response was made by letter dated _____ 19___.

LEASE INTEREST OWNER NOTIFICATION RESPONSIBILITY

N/A 1. (Rule R615-2-10) The former operator/lessee of any **fee lease** well listed above has been notified by letter dated _____ 19___, of their responsibility to notify any person with an interest in such lease of the change of operator. Documentation of such notification has been requested.

DTS 8/5/95

N/A 2. Copies of documents have been sent to State Lands for changes involving **State leases**.

FILMING

✓ 1. All attachments to this form have been microfilmed. Date: October 6 19 95.

FILING

___ 1. Copies of all attachments to this form have been filed in each well file.

___ 2. The original of this form and the original attachments have been filed in the Operator Change file.

COMMENTS

950803 UIC F5/Not necessary!

FORM 10

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING
355 West North Temple, 3 Triad, Suite 350, Salt Lake City, UT 84180-1203

MONTHLY OIL AND GAS PRODUCTION REPORT

OPERATOR NAME AND ADDRESS:

C/O MOBIL OIL CORP
M E P N A
PO DRAWER G
CORTEZ CO 81321

UTAH ACCOUNT NUMBER: N7370

REPORT PERIOD (MONTH/YEAR): 6 / 95

AMENDED REPORT ☐ **(Highlight Changes)**

Well Name / API Number / Entity / Location	Producing Zone	Well Status	Days Oper	Production Volumes OIL(BBL)	GAS(MCF)	WATER(BBL)
#18-13 4303715734 06280 41S 24E 18	PRDX					
#19-12 4303715739 06280 41S 24E 19	PRDX					
#19-14 4303715740 06280 41S 24E 19	DSCR					
RATHERFORD UNIT 19-32 (RE-ENTRY) 4303715743 06280 41S 24E 19	DSCR					
RATHERFORD UNIT 19-34 (RE-ENTRY) 4303715744 06280 41S 24E 19	DSCR					
RATHERFORD 20-12 (RE-ENTRY) 4303715746 06280 41S 24E 20	DSCR					
THERFORD UNIT 20-14 (RE-ENTRY) 4303715747 06280 41S 24E 20	DSCR					
RATHERFORD UNIT 20-32 (RE-ENTRY) 4303715749 06280 41S 24E 20	DSCR					
RATHERFORD 20-34 (RE-ENTRY) 4303715750 06280 41S 24E 20	DSCR					
#21-12 4303715752 06280 41S 24E 21	DSCR					
RATHERFORD UNIT 21-14 (RE-ENTRY) 4303715753 06280 41S 24E 21	DSCR					
#21-32 4303715755 06280 41S 24E 21	DSCR					
#21-34 4303715756 06280 41S 24E 21	DSCR					
	TOTALS					

)MMENTS: _____

I certify that this report is true and complete to the best of my knowledge. Date: _____

me and Signature: _____ Telephone Number: _____

2/93)

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT - " for such proposals

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No.: 14-20-603-353
6. If Indian, Allottee or Tribe Name: NAVAJO TRIBAL
7. If Unit or CA, Agreement Designation: RATHERFORD UNIT
8. Well Name and No.: RATHERFORD 20-W-14
9. API Well No.: 43-037-15747
10. Field and Pool, or exploratory Area: GREATER ANETH
11. County or Parish, State: SAN JUAN UT

1. Type of Well: [ ] Oil Well [ ] Gas Well [X] Other
2. Name of Operator: MOBIL PRODUCING TX & NM INC.*
*MOBIL EXPLORATION & PRODUCING US INC. AS AGENT FOR MPTM
3. Address and Telephone No.: P.O. Box 633, Midland TX 79702 (915) 688-2585
4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
SEC. 20, T41S, R24E
660' FSL & 660' FWL
LATERAL #1 BHL: 618' FNL & 442' FWL

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
[X] Notice of Intent	[ ] Abandonment	[ ] Change of Plans
[ ] Subsequent Report	[ ] Recompletion	[ ] New Construction
[ ] Final Abandonment Notice	[ ] Plugging Back	[ ] Non-Routine Fracturing
	[ ] Casing Repair	[ ] Water Shut-Off
	[ ] Altering Casing	[ ] Conversion to Injection
	[X] Other INJECTOR/SIDETRACK	[ ] Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

BHL:
650130.84E x 4118208.29N

LATERAL #2: 1302' SOUTH & 1093' EAST FROM SURFACE SPOT (ZONE 1B).
LATERAL #3: 1093' SOUTH & 1302' EAST FROM SURFACE SPOT (ZONE 1A). 442 FNL x 1965 FWL SEC 29
650196.72E x 4118346N NE NW

SEE ATTACHED PROCEDURE.

Approved by the Utah Division of Oil, Gas and Mining
Date: 11/4/98
By:

COPY SENT TO OPERATOR
Date: 11-5-98
Initials: CHD

RECEIVED
OCT 16 1998
DIV. OF OIL, GAS & MINING

14. I hereby certify that the foregoing is true and correct
Signed Sue Moseley for Title SHIRLEY HOUCHINS/ENV & REG TECH Date 10-12-98

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*** See Instruction on Reverse Side**

Ratherford Unit Well #20-14
Horizontal Drilling Procedure

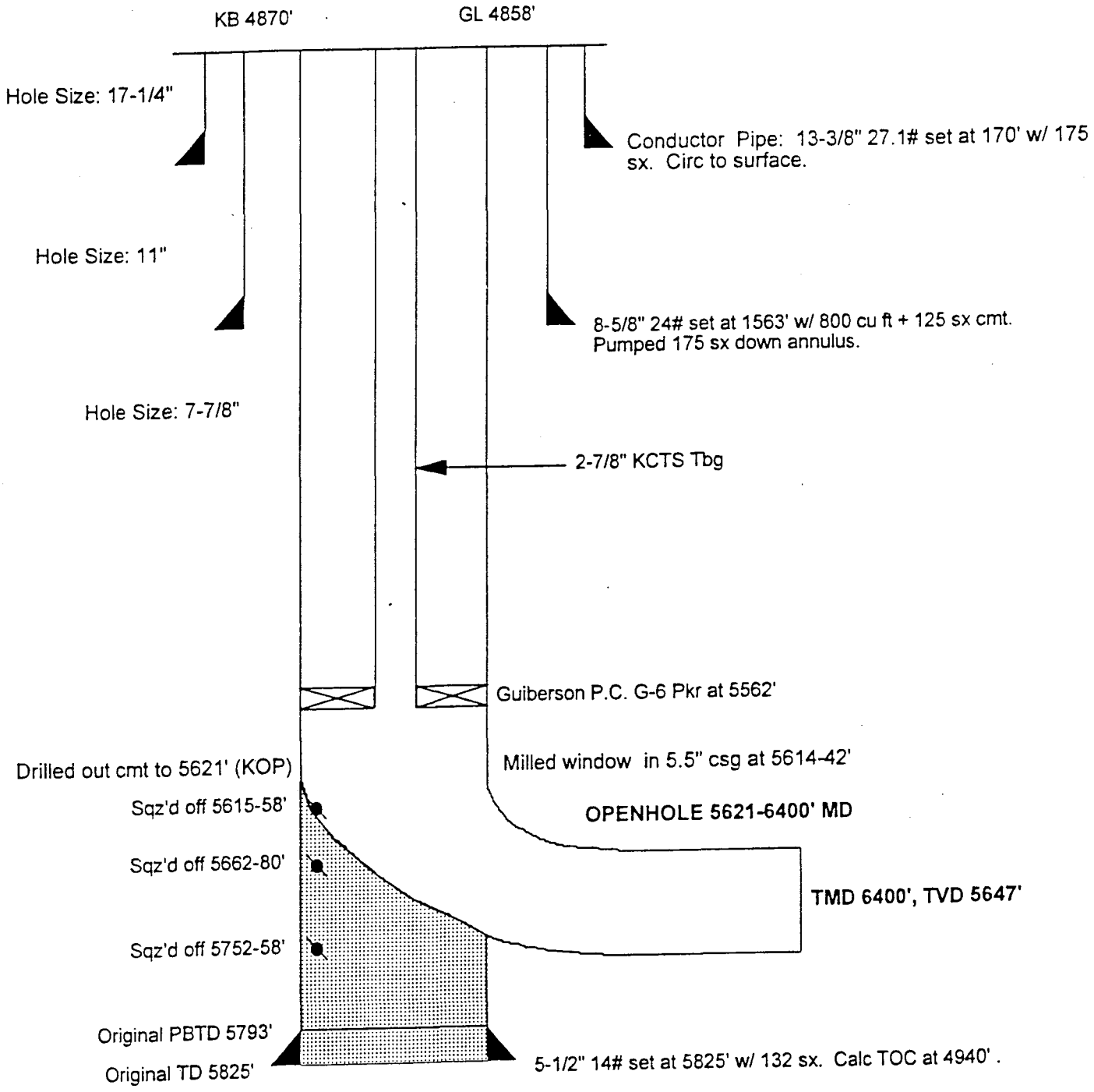
The objective of this procedure is to prepare this wellbore for sidetracking, sidetrack the subject well and drill multilateral short radius horizontal laterals (1700 feet) in addition to the existing lateral.

1. Prepare location and dig working pit.
2. MIRU WSU, reverse unit, and H2S equipment. Bullhead kill weight fluid down tubing.
3. ND wellhead and NU BOP's. Pressure test BOP's to working pressure.
4. Continue to POH with related equipment (tubing and rods for producers or tubing and packer for injectors).
5. RU wireline to run any logs desired and run gage ring for casing size and weight.
6. Set retrievable bridge plug and pressure test casing to 1000 psi.
7. RDMO WSU.
8. MIRU 24 hr. WSU. NU BOP's and pressure test with chart.
9. PU tubing, drilling collars, and drill pipe in derrick and run in hole. Then POH and stand back.
10. Run packer on wireline and set using GR/CCL log to correlate with. RD wireline.
11. PU drillpipe with UBHO sub in string and latch into packer to survey the hole and obtain orientation of keyway. POH w/gyro and drill string.
12. Orient whipstock on surface to desired bearing and RIH on drill pipe. Latch into packer. Shear starter mill bolt and make starter cut.
13. POH w/ starter mill and pick up window mill and watermelon mill and continue to mill window. Drill 1-2 ft of formation
14. POH w/ mills and PU curve building assembly and drill string with UBHO sub in string and RIH.
15. RU gyro to assist in time drilling and starting out of the casing window. POH w/ gyro when inclination dictates it must be pulled.
16. Finish drilling the curve using the MWD.
17. POH once curve is finished and PU lateral motor to drill the lateral using MWD.
18. Once lateral TD is reached, POH w/ directional equipment.
19. PU retrieving hook and RIH on drill pipe. Retrieve whipstock and PU new whipstock oriented for desired bearing to start in hole.
20. Repeat steps 12 through 19 for each subsequent lateral.

RATHERFORD UNIT # 20-W-14

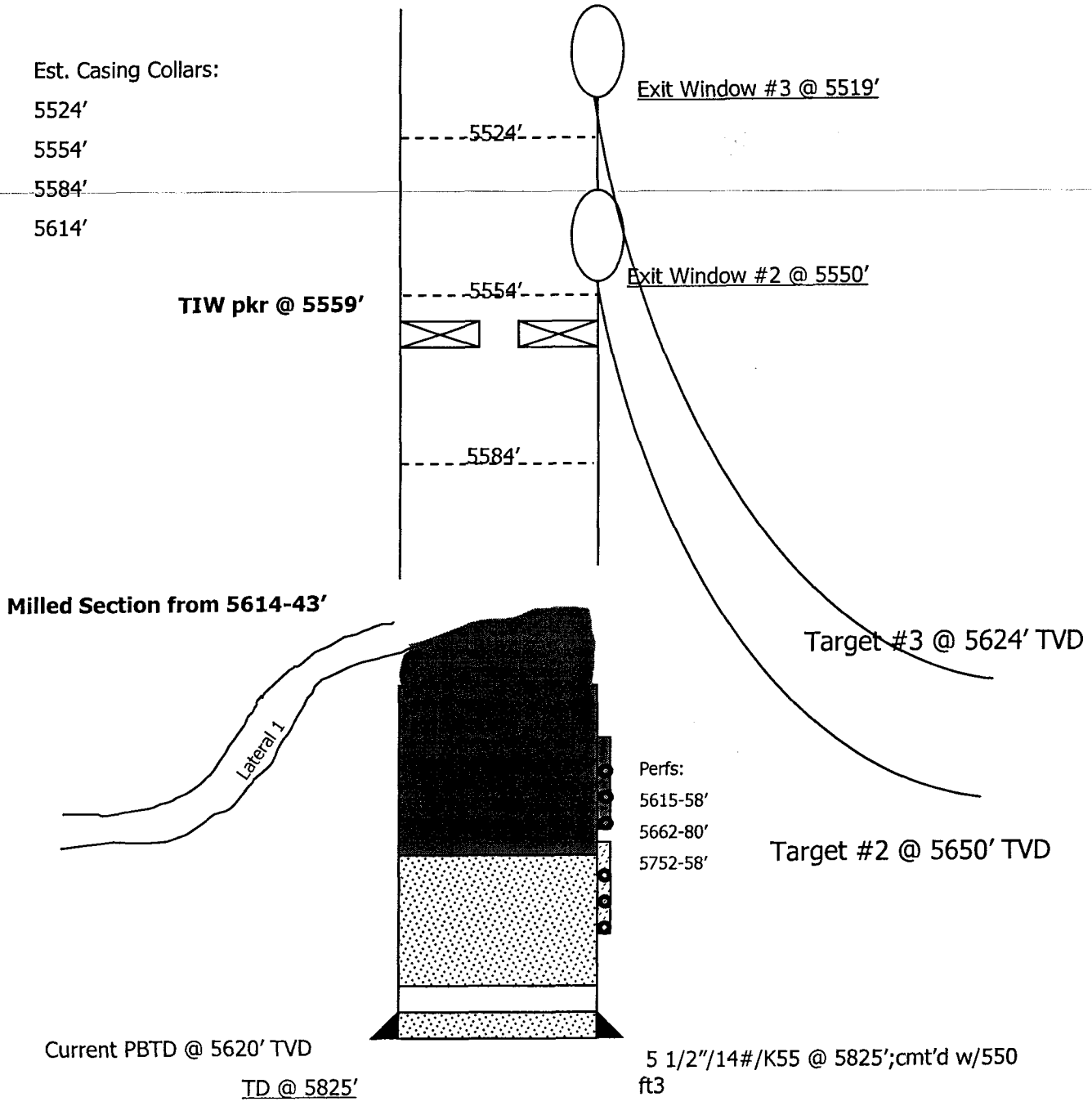
INJECTOR

GREATER ANETH FIELD
Surface Location: 660' FSL, 660' FWL
BH Location: 618' N & 442' W of Surf. Loc.
SEC 20-T41S-R23E
SAN JUAN COUNTY, UTAH
API 43-037-15747
PRISM 0043094



L. A. TUCKER 7-16-96 R.U. # 20-W-14

Ratherford Unit #20-14



Window	Btm-Top of Window	Ext length	Curve Radius	Bearing	Horiz Displ
2	5550-44	-----	100	140	1700
3	5519-13'	31	105	130	1700

The double spline is 2.42 ft long and the bottom of the whipstock, the latch, the debris and the shear sub are 8.68 ft long. These lengths must be added to determine the entire whipstock assembly length.

Pason SYSTEMS USA CORP.
Electronic Rig Monitoring Systems • Well Logging • Consulting Geology • Coal Bed Methane Services
2450 INDUSTRIAL BLVD. • GRAND JUNCTION, CO 81505
(970) 243-3044 • (FAX) 241-1085

Monday, January 18, 1999

Division of Oil & Gas Mining
State of Utah
1594 West North Temple
3 Triad Center, Ste. 1210
Salt Lake City, UT 84116

Re: Ratherford Unit #20-14 Legs 2 & 3
Sec. 20, T41S, R24E – 43-037-15947
San Juan County, Utah

Dear Sirs:

Enclosed is the final computer colored log and geology report for the above referenced well.
Logs filed in Log File
We appreciate the opportunity to be of service to you and look forward to working with you again in the near future.

If you have any questions regarding the enclosed data, please contact us.

Sincerely,

Bill Nagel

Bill Nagel
Senior Geologist

BN/dn

Enc. 1 Final Computer Colored Log and Geology Report

cc Letter Only; Dana Larson; Mobil E & P U.S., Inc.; Midland, TX

MOBIL

RATHERFORD UNIT #20-14
SE HORIZONTAL LATERAL LEG #3
UPPER 1-A POROSITY BENCH
DESERT CREEK MEMBER
PARADOX FORMATION
SECTION 20, T41S, R24E
SAN JUAN, UTAH

43-037-15949

GEOLOGY REPORT
prepared by
LUKE TITUS
PASON/ROCKY MOUNTAIN GEO-ENGINEERING CORP.
GRAND JUNCTION, COLORADO
(970) 243-3044

TABLE OF CONTENTS

WELL SUMMARY

OPERATOR:	MOBIL EXPLORATION & PRODUCTION U.S. INC.
NAME:	RATHERFORD UNIT #20-14 SE HORIZONTAL LATERAL LEG #3 IN 1-A POROSITY BENCH, DESERT CREEK
LOCATION:	SECTION 20, T41S, R24E
COUNTY/STATE:	SAN JUAN, UTAH
ELEVATION:	KB:5105' GL:5093'
SPUD DATE:	11/13/98
COMPLETION DATE:	11/22/98
DRILLING ENGINEER:	SIMON BARRERA
WELLSITE GEOLOGY:	DAVE MEADE / MARVIN ROANHORSE/LUKE TITUS
MUDLOGGING ENGINEERS:	DAVE MEADE / MARVIN ROANHORSE/LUKE TITUS
CONTRACTOR: **TOOLPUSHER:**	BIG "A" RIG 25 J. DEES
HOLE SIZE:	4 ¾"
CASING RECORD:	SIDETRACK IN WINDOW AT 5371' MEASURED DEPTH
DRILLING MUD: **ENGINEER:** **MUD TYPE:**	M-I MIKE PITTSINGER FRESH WATER & BRINE WATER W/ POLYMER SWEEPS
DIRECTIONAL DRILLING CO:	SPERRY-SUN
ELECTICAL LOGGING:	NA
TOTAL DEPTH:	7209' MEASURED DEPTH; TRUE VERTICAL DEPTH-5631.7'
STATUS:	PREPARING TO MOVE RIG

DRILLING CHRONOLOGY
RATHERFORD UNIT #20-14
1-A SE HORIZONTAL LATERAL LEG #3

DATE	DEPTH	DAILY	ACTIVITY
11/19/98	0'	0'	CIR LCM-TOH W/ANCHOR LATCH-TOH-P.U. ANCHOR LATCH-TIH-RUN GYRO & ORIENT ANCHOR-RIG DOWN GYRO-TOH-P.U. WHIPSTOCK #1 & STARTER MILL-ORIENT-TIH-SET WHIPSTOCK- MILL W/STARTER MILL 5615' TO 5618'-TOH-L.D. STARTER MILL-P.U. WINDOW MILL & WATER MELON MILLS-TIH-MILL W/WINDOW MILLS 5618' TO 5620'-L.D. MILLS-P.U. STR MILL-TIH
11/20/98	5620'	235'	TIH-R.U. GYRO DATA & RIH W/ GYRO-TIME DRLG 5620' TO 5623'-DIR DRLG & WIRELINE SURVEYS TO 5623'-PULL GYRO & RIG DOWN GYRO DATA-DIR DRLG & SURVEYS TO 5692' (T.D. CURVE)-PUMP SWEEP & CIR OUT-L.D. CRV ASSEM.-P.U. LAT ASSEM.-TEST & ORIENT-TIH-DIR DRLG F/5692-T/5755
11/21/98	5755'	130'	DIR DRLG & SUR F/5755 -T/6985
11/22/98	6985'	TD	DIR DRLG & SURVEYS TO 7209' (TD LATERAL #3)-PUMP SWEEP & CIR SPLS-PUMP 10 BBLS BRINE-TOH TO WINDOW-PUMP 10 BBLS BRINE-TOH-L.D. LATERAL ASSEMBLY-PREPARE TO MOVE RIG

DAILY ACTIVITY

Operator: MOBIL
Well Name: RATHERFORD UNIT #20-14 SE 1-A HORIZONTAL LATERAL LEG #3

DATE	DEPTH	DAILY	DATE	DEPTH	DAILY
11/20/98	5520'	235'			
11/21/98	5755'	1230'			
11/22/98	6985'	TD			

BIT RECORD

OPERATOR: MOBIL
WELL NAME: RATHERFORD UNIT #20-14 SE 1-A HORIZONTAL LATERAL LEG #3

RUN	SIZE	MAKE	TYPE	IN/OUT	FTG	HRS	FT/HR
#1 (RR)	4 3/4"	STC	MF-3P	5520'/ 5690'	172'	13.0	14
#2	4 3/4"	STC	MF-3P	5690'/ 7209'	1517'	31	50

MUD REPORT

OPERATOR: MOBIL
WELL NAME: RATHERFORD UNIT #20-14 SE 1-A HORIZONTAL LATERAL LEG #3

DATE	DEPTH	WT	VIS	PLS	YLD	GEL	PH	WL	CK	CHL	CA	SD	OIL	WTR
11/20/98	5520'	8.5	26	1	1	0/0	8.0	NC	NC	9000	800	0%	0%	100%
11/21/98	6100'	8.7	26	1	1	0/0	12.5	NC	NC	39000	1200	0%	1%	99%
11/22/98	6902'	8.9	26	1	1	0/0	10.0	NC	NC	51000	1440	1%	0%	99%

SPERRY-SUN DRILLING SERVICES
SURVEY DATA

Customer ... : Mobil (Utah)
Platform ... : RATHERFORD UNIT
Slot/Well .. : BA25/20-14 3A1

MEASURED DEPTH	ANGLE DEG	DIRECTION DEG	TVD FEET	NORTHINGS FEET	EASTINGS FEET	VERTICAL SECTION	DOG LEG
5500	0.35	313.92	5499.77	27.7 N	11.52 W	-26.63	0
5513	0.35	320.63	5512.77	27.76 N	11.57 W	-26.71	0.32
5520	4.2	130	5519.76	27.61 N	11.39 W	-26.47	64.92
5530	9.2	122.98	5529.69	26.94 N	10.44 W	-25.31	50.57
5540	14.5	120.91	5539.48	25.86 N	8.69 W	-23.28	53.16
5550	19.6	119.91	5549.03	24.38 N	6.16 W	-20.39	51.08
5560	24.7	119.31	5558.29	22.52 N	2.89 W	-16.69	51.05
5570	29.4	118.91	5567.2	20.31 N	1.09 E	-12.22	47.03
5580	34.4	118.62	5575.68	17.77 N	5.72 E	-7.04	50.02
5590	39.9	118.4	5583.65	14.89 N	11.02 E	-1.13	55.02
5600	45.9	114	5590.97	11.9 N	17.13 E	5.47	67.03
5610	49.9	115.9	5597.68	8.77 N	23.85 E	12.64	42.41
5620	54.3	117.9	5603.82	5.19 N	30.89 E	20.32	46.74
5630	59	121	5609.32	1.08 N	38.15 E	28.53	53.65
5640	64.5	121.7	5614.05	3.5 S	45.67 E	37.24	55.34
5650	70	121.9	5617.91	8.36 S	53.51 E	46.36	55.03
5660	75.5	122.4	5620.88	13.44 S	61.59 E	55.82	55.21
5692	89.8	134.9	5624.98	33.21 S	86.23 E	87.4	59.07
5722	91.8	132.7	5624.56	53.97 S	107.88 E	117.33	9.91
5754	88.8	131.1	5624.39	75.34 S	131.69 E	149.31	10.62
5786	90.1	131.7	5624.7	96.5 S	155.69 E	181.3	4.47
5818	91.5	132.5	5624.25	117.95 S	179.43 E	213.27	5.04
5849	92.2	133.1	5623.25	139 S	202.16 E	244.22	2.97
5881	91.8	133.8	5622.13	161 S	225.38 E	276.14	2.52
5913	90.8	134.1	5621.41	183.2 S	248.41 E	308.05	3.26
5945	91.1	134.8	5620.88	205.6 S	271.25 E	339.95	2.38
5976	90.1	132.9	5620.55	227.08 S	293.61 E	370.88	6.93
6008	88.2	132.9	5621.03	248.86 S	317.04 E	402.83	5.94
6039	88.9	132.4	5621.81	269.85 S	339.84 E	433.79	2.77
6071	87.6	130.6	5622.79	291.05 S	363.79 E	465.76	6.94
6103	87.2	129.4	5624.24	311.59 S	388.28 E	497.73	3.95
6135	89	128	5625.3	331.59 S	413.24 E	529.7	7.12
6167	90.4	128.9	5625.47	351.49 S	438.3 E	561.69	5.2
6198	87.2	126.9	5626.12	370.52 S	462.75 E	592.65	12.17
6230	88.2	126.4	5627.4	389.61 S	488.4 E	624.57	3.49
6262	91	127.3	5627.63	408.8 S	514.01 E	656.52	9.19
6294	87.3	123.9	5628.1	427.42 S	540.01 E	688.41	15.7
6325	89	124.1	5629.1	444.74 S	565.7 E	719.23	5.52

SPERRY-SUN DRILLING SERVICES
SURVEY DATA

Customer ... : Mobil (Utah)
Platform ... : RATHERFORD UNIT
Slot/Well .. : BA25/20-14 3A1

MEASURED DEPTH	ANGLE DEG	DIRECTION DEG	TVD FEET	NORTHINGS FEET	EASTINGS FEET	VERTICAL SECTION	DOG LEG
6357	90.2	123.9	5629.32	462.64 S	592.23 E	751.05	3.8
6389	89.7	121.5	5629.35	479.92 S	619.15 E	782.79	7.66
6421	92.7	123.9	5628.68	497.2 S	646.07 E	814.51	12
6453	94.1	125.5	5626.78	515.39 S	672.33 E	846.32	6.64
6484	93.6	125.3	5624.7	533.3 S	697.54 E	877.15	1.74
6516	90.9	127.3	5623.45	552.23 S	723.31 E	909.05	10.5
6548	89.3	126.4	5623.39	571.42 S	748.91 E	941	5.74
6579	91	129.2	5623.31	590.42 S	773.41 E	971.98	10.57
6611	91.8	131.5	5622.53	611.13 S	797.78 E	1003.96	7.61
6642	91.8	131.3	5621.55	631.62 S	821.03 E	1034.94	0.64
6674	90.5	131.5	5620.91	652.78 S	845.02 E	1066.92	4.11
6705	84.1	128.3	5622.37	672.63 S	868.76 E	1097.87	23.07
6736	85.9	128.5	5625.07	691.81 S	892.96 E	1128.74	5.84
6767	89.1	127.6	5626.43	710.9 S	917.35 E	1159.69	10.72
6799	88.9	127.4	5626.98	730.37 S	942.73 E	1191.65	0.88
6830	85.3	125.5	5628.55	748.76 S	967.63 E	1222.54	13.13
6862	87.3	125.3	5630.62	767.26 S	993.66 E	1254.37	6.28
6893	92.4	125.5	5630.7	785.21 S	1018.92 E	1285.26	16.46
6925	88.3	124.5	5630.5	803.56 S	1045.13 E	1317.13	13.19
6956	89.2	124.3	5631.18	821.07 S	1070.7 E	1347.98	2.97
6987	93.3	126.7	5630.5	839.06 S	1095.92 E	1378.87	15.32
7018	89	124.8	5629.88	857.17 S	1121.07 E	1409.77	15.16
7050	89	126.4	5630.44	875.79 S	1147.08 E	1441.67	5
7082	89.8	127.8	5630.77	895.09 S	1172.6 E	1473.62	5.04
7112	87.9	126.2	5631.38	913.14 S	1196.56 E	1503.57	8.28
7144	89.6	125.7	5632.07	931.92 S	1222.45 E	1535.48	5.54
7176	90.5	127.6	5632.05	951.02 S	1248.13 E	1567.43	6.57
7209	90.5	127.6	5631.76	971.16 S	1274.27 E	1600.4	0

THE DOGLEG SEVERITY IS IN DEGREES PER 100 FEET.
N/E COORDINATE VALUES GIVEN RELATIVE TO WELL HEAD.
TVD COORDINATE VALUES GIVEN RELATIVE TO WELL HEAD.
THE VERTICAL SECTION ORIGIN IS WELL HEAD.
THE VERTICAL SECTION WAS COMPUTED ALONG 130 (TRUE).
CALCULATION METHOD: MINIMUM CURVATURE.
*7209 EXTRAPOLATED TO BIT

SAMPLE DESCRIPTIONS

OPERATOR: MOBIL
WELL NAME: RATHERFORD UNIT #20-14 SE 1-A HORIZONTAL LATERAL LEG #3

DEPTH	LITHOLOGY

5520.00 5530.00 "LS,ltbn-tn-crm-ofwht,crypt-mic xln-occ vf xln,mdns-dns-tt mtx,sl dol to dol ip,chlky/anhy,rthy to arg grdg to MRLY LS,tr DOL-dkbn-bn,NFSOC,intrxln-compact xln POR"
□

5530.00 5540.00 "LS,crm-tn-ltbn-ltgybn,mic-vf xln,tr crypt xln,mdns-tt mtx,rthy/arg,chlky-anhy-tr ANHY xls,rr blk CARB SH,tr smky-bn CHT frgs,scat dkbn-bn DOL-microsuc mtx"
□

5540.00 5550.00 "LS AA,occ slty,sft-frm,occ plty,chlky,arg-mrly ip,rr foss frgs,occ cln,tr transl-bn CHT frgs,tr dkbn-blk SH prtgs,rthy,pred intrxln-compact xln fab POR,NFSOC"

5550.00 5560.00 "LS,ltbn-bn-tn-crm-ofwht,crypt-mic xln,scat vf xln,occ slty-grn mtx,pred mdns-dns mtx,icr in rthy to arg grdg to MRLY LS ip,sft,tr CHT frgs"

5560.00 5570.00 "LS,bn-ltbn-tn-crm,mic-vf xln,mdns mtx,incr in arg mtx grdg to MRLY LS,rthy,slty-occ grn,rr dkbn DOL,tr ltbn-CHT frgs,rr SH prtgs,sme chlky/anhy incl,rr calc frac flgs"
□

5570.00 5580.00 "LS,crm-tn-ltgybn-ltbn,pred vf xln-tr micro xln,mnds mtx,grn mtx,chlky,occ cln,occ rthy/arg,pred interxln fab POR w/NFSOC"

5580.00 5590.00 "LS,ltgy-crm-tn-occ bn,mic-vf xln,mdns mtx,grn mtx,chlky/anhy,cln,sl plty,tr dkbn-sl suc DOL,rr blk SH prtgs,NFSOC"
□

5590.00 5600.00 "LS ltgybn-ltgy-ltbn-tn-crm-ofwht,mic-vf xln,slty-grn mtx,mdns mtx ip,sl dol to occ dol ip-DOL cmt,tr ANHY xls-chlky/anhy,rr SH prtgs,sft-mfrm"

5600.00 5610.00 "SH blk-dkbn-dkgybn,slty,sft-frm,occ fiss,sbplty-plty,tr blky-sblky,sooty,tr pyr incl,tr LS-crm-tn,dns-tt mtx,plty,frm"

5610.00 5620.00 "SH AA,sooty,carb,calc-sl dol,mica-incl w/intrbd DOL-dkbn-bn,mdns-occ calc rich & LS AA"
□

5620.00 5630.00 "LS,crm-tn-ofwht,mic-vf xln,rr crypt xln,mdns mtx-tr grn mtx,cln,v-sl dol,chlky/anhy PKST,v sl rthy,rr SH prtgs & DOL,tr blk dd o STN,v spty dul FLOR,no vis CUT"

5630.00 5640.00 "LS,intrbd chlky/anhy PKST & sl ool GRNST,rr sh prtgs,even dul-mbri yelgld FLOR,tr slo strmg sl dif CUT,pr-tr ltbn o STN w/dd o STN res,pred pr-mg-tr oom fab POR"
□

DEPTH	LITHOLOGY

5640.00 5660.00 "LS,ltbn-tn-occ brn,sl mott-mtt,mic-pred vf xln,grn-microsuc mtx,pred sl alg sl ool occ oom/ooc GRNST w/rr dns chlky/anhy PKST,rr carb mat & ANHY xls;pred mf-mg intrxln to pr-mg oom/ooc fab POR w/microsuc fab POR ip,fst blmg CUT,bri yelgld FLOR,mgo STN"

5660.00 5680.00 "LS bn-ltbn-tn-occ crm,pred vf xln,mdns mtx ip,pred grn-microsuc mtx,v sl dolo,alg dev,pred sl ool sl oom/ooc GRNST,fri,occ sl chlky;pred mg-intrxln to scat oom/ooc fab POR w/microsuc fab POR ip,g-fst blmg CUT,even bri FLOR,mg-ltbn-bn o STN"

5680.00 5692.00 "LS AA,m-fst dif CUT to f-mg slo strmg mlky ring CUT,mf-f ltbn-bn o STN, rr blk dd o STN res,even mbri-bri yelgld FLOR,pred mg-intrxln fab POR w/scat oom/ooc fab POR,fri"
□
5692.00 5710.00 "LS brn-ltbrn,occ dkbrn,tan,tr crm,micxl-vfxl-gran,sl micsuc,tr crpxl,ool-sl ooc-oom GRNST,tr intbd sl ooc dns PKST/gran tex,tr chky plty prtgs,rr xln ANHY,dol/DOL cmt,mg ool-sl oom-tr intxl-rr agl POR,g even mod bri-bri yel FLOR,mg brn/tr"

5692.00 5710.00 "dkbrn STN,g fast stmg mlky CUT"

5710.00 5730.00 "LS AA,ool-sl ooc-oom GRNST,tr scat-intbd PKST AA,sl chky/tr POR fl-prtgs,sl anhy/rr xln ANHY,dol/tr DOL cmt,mg ool-sl oom-rr agal/tr intxl POR,FLOR-STN AA,g fast-sl blooming mlky CUT"

5730.00 5750.00 "LS ltbrn-tan,occ brn,tr dkbrn,crm,vfxl-gran-sl micsuc,micxl-tr crpxl,ool-sl ooc-oom GRNST/sl ooc dns PKST intcl/gran tex,slchky/tr POR fl-plty prtgs,rr xln ANHY,dol/tr DOL cmt,POR-FLOR-STN-CUT AA"

5750.00 5780.00 "LS AA,vfxl-gran-micsuc,micxl-crpxl,ool-sl ooc-oom GRNST,tr sl ool-ooc dns PKST intcl/gran tex,sl chky/tr POR fl-plty prtgs,v sl anhy/rr xln ANHY,dol/tr DOL cmt,mg-g ool-sl oom/tr intxl POR,g even mod bri-bri yel FLOR,STN AA,g mod fast-fast stmg mlky CUT"

5780.00 5810.00 "LS tan-ltbrn,occ brn,tr dkbrn,rr crm-wh,AA,ool-sl ooc-oom GRNST,tr PKST intcl AA/gran tex,sl chky-anhy/tr POR fl-rr plty prtgs & xln ANHY,dol/tr DOL cmt,POR-FLOR AA,mg ltbrn-tr brn-rr dkbrn & blk dd o STN,g fast-blooming mlky CUT"

5810.00 5850.00 "LS ltbrn-brn-tan,occ dkbrn,tr crm,rr wh,vfxl-gran-micsuc,micxl-crpxl,ool-oom-sl ooc GRNST,tr sl ooc dns PKST intcl/gran tex,sl chky-anhy/tr POR fl-rr plty prtgs & xln ANHY,sl dol/tr DOL cmt,g-mg ool-oom-trintxl-rr agl POR,g even mod"

5810.00 5850.00 "bri-scat spty bri yel FLOR,g ltbrn-fr brn-tr dkbrn & blk dd o STN,g fast-mod fast stmg mlky CUT"

5850.00 5880.00 "dd o STN,g mod fast-slow stmg mlky CUT"

DEPTH	LITHOLOGY

5850.00 5880.00 "LS ltbrn-brn,occ tan,tr dkbrn,rr crm,vfxl-gran-sl micsuc,micxl-crpxl,ool-oom-sl ooc GRNST/tr agl mat,tr sl ooc dns PKST intcl/gran tex,sl chky-anhy/tr POR fl-rr plty prtgs-xln ANHY,dol/tr DOL cmt,POR-FLOR AA,mg-g brn-ltbrn-tr dkbrn & blk"

5880.00 5920.00 "LS AA,vfxl-gran-micsuc,micxl-crpxl,ool-oom GRNST/tr agl mat,tr sl ool-ooc dns PKST intcl/gran tex,v sl chky-anhy/rr POR fl-plty prtgs,v rr xln ANHY,dol/tr DOL cmt,g ool-oom/tr agl POR,g even mod bri-spty bri yel FLOR,STN AA,g mod fast-slow stmg mlky CUT"

5920.0 5950.00 "g fast-mod fast stmg mlky CUT"
5920.00 5950.00 "LS ltbrn-brn-tan/tr crm-off wh incl,tr dkbrn,vfxl-gran-micsuc,micxl-crpxl,ool-oom-ooc GRNST/tr agl mat,tr sl ooc-ool dns PKST intcl/gran tex,chky-sl anhy/tr POR fl-v rr plty prtgs,rr xln ANHY,dol/tr DOL cmt,POR-FLOR AA,mg-g ltbrn-brn-tr dkbrn & blk STN,"

5950.00 5980.00 "LS AA,vfxl-gran-micsuc,micxl-crpxl,ool-oom-sl ooc GRNST/tr agl mat,tr sl ool-ooc dns PKST intcl/gran tex,chky-sl anhy/tr POR fl-rr plty prtgs,v rr xln ANHY,dol/tr DOL cmt,POR AA,g even mod bri-fr spty bri yel FLOR,STN-CUT AA"

5980.00 6010.00 "LS,bn-mbn-occ ltbn,mott,mic-pred vf xln,mdns mtx ip,grn mtx,pred ool oom/ooc GRNST,rr ANHY xls-occ sl chlky,fri;pred mg-oom/ooc fab POR w/an intrxln fab POR ip,even-mbri-bri yelgld FLOR,f-fst to mg slo strmg mlky CUT"

6010.00 6040.00 "LS AA,pred f-mg oom/ooc fab POR w/an intrxln fab POR ip,even dul-bri yelgld FLOR,f-fst to mg-slo strmg dif mlky ring CUT,mg-bn o STN, tr dd blk o STN"

6040.00 6070.00 "LS bn-mbn-occ dkbn,mottt,pred vf xln,mdns mtx ip,grn-microsuc mtx,pred ool rich oom GRNSt , rr dns PKST,tr carb mat & ANHY xls,v sl dol ip;POR AA,scat dd blk o STN coating calc xls & ool casts"

6070.00 6100.00 "LS,mbn0bn,mott,pred mic-vf xln,rr crypt xln,pred ool oom/ooc GRNST w/rr dns sl ool PCKST,v sl dol,tr calc frac flgs, smr foss frgs-Crin stem;pred interxln fab POR ip w/oom/ooc fab POR,mg-bn o STN,even dul-mbri-spty bri FLOR,mg-slo strmg CUT"

6100.00 6130.00 "LS AA,mf-mg bn-occ ltbn mtx o STN w/tr blk dd o STN flg casts,f-mg even dul-mbri-spty bri yelgld FLOR,fst-mf-f slo strmg dif CUT,pred mg-oom/ooc fab POR w/an interxln fab POR ip"

6130.00 6160.00 "LS,bn-dkbn-occ ltbn & tn,mott,mic-pred vf xln,mdns-grn mtx,tr microsuc mtx,pred ool rich oom GRNST;FLOR AA,CUT AA,o STN AA,POR AA"

6160.00 6190.00 "LS,bn-ltbn-dkbn-occ tn,sl mott-mott,mic-vf xln,grn mtx,pred ool oom/ooc mdns GRNST w/v rr dns sl ool occc chlky PKST,v sl dol & anhy ip;pred mg-interxln fab POR & pr-g oom/ooc fab POR,even dul-mbri yelgld FLOR,mg-bn 0 STN,tr blk dd o STN"

DEPTH	LITHOLOGY

6190.00 6220.00 "LS AA,CUT AA,FLOR AA,o STN AA,pred reduced-mg oomoldic to oolicastic fab POR w/an intrxlnfab POR ip"

6220.00 6250.00 "LS,ltbn-bn-occ dkbn,mott,pred mic-vf xln,rr crypt xln,pred ool oom/ooc GRNST w/rr dns sl ool PCKST,v sl dol,tr calc frac flgs, smr foss frgs-Crin stem;pred interxln fab POR ip w/oom/ooc fab POR,mg-bn o STN,even dul-mbri-spty bri FLOR,mg-slo strmg CUT"

6250.00 6280.00 "LS AA,mf-mg bn-occ ltbn mtx o STN w/tr blk dd o STN flg casts,f-mg even dul-mbri-spty bri yelgld FLOR,fst-mf-f slo strmg dif CUT,pred mg-oom/ooc fab POR w/an interxln fab POR ip"

6280.00 6310.00 "LS bn-dkbn-occ ltbn,mott,mic-pred vf xln,fri,mdns mtx ip,pred ool oom/ooc GRNST w/tr dns sl ool PKST,v sl dol,rr ANHY xls-v sl anhy;pred mg-bn-dkbn o STN w/tr blk dd o STN res,mbri yelgld FLOR,fst blmg to g-slo strmg mlky ring CUT"
6310.00 6340.00 "LS AA,pred oom/ooc sl microsuc fab POR w/intrxln fab POR ip,mg-even dul-spty mbri/bri yelgld FLOR,fst blmg CUT,mg-bn-dkbn o STN"

6340.00 6370.00 "LS,bn-dkbn-tr ltbn/tn,pred vf xln,mdns-grn-microsuc mtx,v sl alg dev,pred ool rich GRNST,fri,sme calc frac flgs,tr chlky/anhy fld casts;FLOR AA,o STN AA,CUT AA,mg-oom/ooc fab POR"

6370.00 6400.00 "LS AA,vfxl-gran-micsuc,micxl-crpxl,ool-oom-sl ooc GRNST/tr agl mat,tr sl ool-ooc dns PKST intcl/gran tex,chky-sl anhy/tr POR fl-rr plty prtgs,v rr xln ANHY,dol/tr DOL cmt,POR AA,g even mod bri-fr spty bri yel FLOR,STN-CUT AA"

6400.00 6430.00 "LS bn-mbn-occ dkbn,mottt,pred vf xln,mdns mtx ip,grn-microsuc mtx,pred ool rich oom GRNSt , rr dns PKST,tr carb mat & ANHY xls,v sl dol ip;POR AA,scat dd blk o STN coating calc xls & ool casts"

6430.00 6460.00 "LS,bn-ltbn-dkbn-occ tn,sl mott-mott,mic-vf xln,grn mtx,pred ool oom/ooc mdns GRNST w/v rr dns sl ool occc chlky PKST,v sl dol & anhy ip;pred mg-interxln fab POR & pr-g oom/ooc fab POR,even dul-mbri yelgld FLOR,mg-bn 0 STN,tr blk dd o STN"

6460.00 6490.00 "LS AA,mf-mg bn-occ ltbn mtx o STN w/tr blk dd o STN flg casts,f-mg even dul-mbri-spty bri yelgld FLOR,fst-mf-f slo strmg dif CUT,pred mg-oom/ooc fab POR w/an interxln fab POR ip"

6490.00 6520.00 "LS,bnltbn-tn-occ dkbn,sl mott-mott,mic-pred vf xln,mdns-grn-microsuc mtx,pred ool sl oom/ooc GRNST,tr dns sl ool PKST,rr calc fac flgs-rr carb mat;pred mg-interxln to oom/ooc fab POR,mg-bn mtx o STN,rr blk dd o STN res,mg-bri yelgld FLOR,fst blmg CUT"

6520.00 6550.00 "LS,bn-ltbn-tn-tr dkbn,mott,pred vf xln,grn-microsuc mtx,occ sl dolo,pred ool oom/ooc mdns GRNST & v rr dns PKST,sme calc/chlky/anhy fld casts;pred pr-mg oom/ooc(fri) to intrxln fab POR ip,mg-even mbri-bri yelgld FLOR,mg-bn-ltbn mtx o STN"

DEPTH	LITHOLOGY

6550.00 6580.00 "LS AA,mf-mg bn-occ ltbn mtx o STN w/tr blk dd o STN flg casts,f-mg even dul-mbri-spty bri yelgld FLOR,fst-mf-f slo strmg dif CUT,pred mg-oom/ooc fab POR w/an interxln fab POR ip"

6580.00 6600.00 "LS,ltbn-bn-tn,mott,pred mic-vf xln,rr crypt xln,pred ool oom/ooc GRNST w/rr dns sl ool PCKST,v sl dol,tr calc frac flgs, smr foss frgs-Crin stem;pred interxln fab POR ip w/oom/ooc fab POR,mg-bn o STN,even dul-mbri-spty bri FLOR,mg-slo strmg CUT"

6600.00 6620.00 "bri yel FLOR,mg-g ltbrn-fr brn/tr dk brn & rr blk dd o STN,g fast-sl blooming mlky CUT"

6600.00 6620.00 "LS ltbrn-tan,tr brn,crm-off wh,vfxl-gran-micsuc,micxl,tr crpxl,ool-sl oom-ooc GRNST,tr dns sl ool-ooc PKST intcl/tr gran tex,chky-sl anhy/tr POR fl-xln ANHY-rr plty prtgs,fr DOL cmt,mg-g ool-sl oom/tr intxl POR,g even mod bri-"

6620.00 6650.00 "LS AA,vfxl-gran-micsuc,micxl-crpxl,rr xln frag,ool-sl oom-ooc GRNST/rr agl mat,tr PKST intcl AA,sl chky-anhy/tr POR fl-xln ANHY-rr prtgs,dol/fr DOL cmt,POR-FLOR-STN AA,g fast-tr sl blooming mlky CUT"

6650.00 6680.00 "even mod bri-bri yel FLOR,mg-g ltbrn-brn-tr dkbrn-rr blk dd o STN,g mod fast-fast/tr sl blooming mlky CUT"
6650.00 6680.00 "LS ltbrn-tan/tr crm-off wh incl,occ brn,tr dkbrn,AA,ool-sl oom-ooc GRNST/intbd agl mat ip,tr dns sl ool-ooc PKST intcl-scat frag/tr gran tex,sl chky-anhy/tr POR fl-xln ANHY-rr plty prtgs,dol/tr DOL cmt,mg-g ool-sl oom/tr intxl POR,g"

6680.00 6710.00 "g even mod bri-scat bri yel FLOR,mg-g ltbrn-brn-tr dkbrn-rr blk dd o STN,g mod fast-fast stmg mlky CUT"

6680.00 6710.00 "LS ltbrn-tan,occ brn,tr dkbrn,crm-off wh,vfxl-gran-micsuc,micxl-crpxl ip,ool-sl oom-ooc GRNST/tr intbd agl mat,tr dns sl ool-ooc PKST intcl-scat frag/tr gran tex,sl-occ v chky-sl anhy/tr POR fl-xln ANHY-rr plty prtgs,dol/tr DOL cmt,POR AA,"

6710.00 6740.00 "LS AA,ool-sl oom-ooc GRNST/intbd agl mat ip,tr PKST AA,sl-occ v chky-sl anhy/tr POR fl-xln ANHY-rr plty prtgs,dol/fr DOL cmt,mg-g ool-sl oom/tr intxl POR,FLOR AA,mg-g ltbrn-brn-tr dkbrn-rr blk dd o STN,g mod fast-fast stmg mlky CUT"

6740.00 6770.00 "ltbrn-tr dkbrn-rr blk dd o STN,g fast stmg-sl blooming mlky CUT"

6740.00 6770.00 "LS ltbrn-brn,occ tan,tr dkbrn,crm,vfxl-gran-micsuc,micxl-crpxl ip,ool-sl oom-ooc GRNST,tr dns sl ool-ooc PKST/tr gran tex,sl chky-anhy/rr POR fl-xln ANHY-v rr prtgs,rr mic fos,dol/fr DOL cmt,g ool-sl oom/tr intxl POR,FLOR AA,g brn-"

DEPTH		LITHOLOGY

6770.00 6800.00 "LS AA,ool-sl oom-ooc GRNST/v rr agl mat,tr dns sl ool-ooc PKST intcl-scat frag/tr gran tex,sl chky-anhy/tr thn plty prtgs-rr POR fl-xln ANHY,tr mic fos,dol/fr DOL cmt,mg-g ool-v sl oom/tr intxl POR,g even mod bri-scat bri yel FLOR,g brn-"

6770.00 6800.00 "ltbrn-tr dkbrn-rr blk dd o STN,g fast-sl blooming mlky CUT"

6800.00 6820.00 "LS AA,ool-sl oom-ooc GRNST,sl incr dns sl ool-ooc intcl-scat frag PKST/gran tex ip,chky-sl anhy/tr POR fl-plty prtgs-rr xln ANHY,rr mic fos,dol/fr DOL cmt,POR-FLOR-STN AA,g fast-sl blooming mlky CUT"

6820.00 6860.00 "LS ltbrn-brn,occ tan,tr dkbrn,crm,vfxl-gran-micsuc,micxl-crpxl,ool-sl oom-ooc GRNST,tr PKST AA/tr gran tex,chky-sl anhy/tr POR fl-thn plty prtgs,rr xln ANHY,rr mic fos,dol/fr DOL cmt,g ool-v sl oom/tr intxl POR,g even mod bri-scat bri"
6820.00 6860.00 "yel FLOR,g-mg ltbrn-brn-tr dkbrn-rr blk pp dd o STN,g fast stmg-sl blooming mlky CUT"

6860.00 6900.00 "LS AA,vfxl-gran-micsuc,micxl-crpxl,ool-sl oom-ooc GRNST/rr agl mat,tr dns sl ool-ooc PKST/tr gran tex,chky-sl anhy/tr POR fl & sl incr thn prtgs,tr xln ANHY,rr mic fos incl,dol/fr DOL cmt,POR-FLOR AA,g ltbrn-brn-tr dkbrn-rr blk dd o STN,CUT AA"

6900.00 6920.00 "LS ltbrn-brn,occ tan-crm,tr dkbrn,off wh,AA,ool-sl oom-ooc GRNST,tr PKST AA/tr gran tex,chky-sl anhy/tr POR fl-prtgs,rr xln ANHY,sl dol/tr DOL cmt,g ool-sl oom/tr intxl POR,FLOR-STN-CUT AA"

6920.00 6950.00 "dkbrn & blk dd o STN,g fast-mod fast stmg mlky CUT"

6920.00 6950.00 "LS AA,vfxl-gran-micsuc,micxl-crpxl,ool-sl oom-ooc GRNST/rr agl mat,tr dns sl ool-ooc PKST/tr gran tex,chky-sl anhy/tr POR fl-rr xln ANHY & prtgs,dol/fr DOL cmt,g ool-sl oom/tr intxl POR,g even mod bri-scat bri yel FLOR,g ltbrn-brn-tr"

6950.00 6980.00 "LS ltbrn-tan,occ brn,tr dkbrn,crm-off wh,vfxl-gran-micsuc,micxl-crpxl ip,ool-sl oom-ooc GRNST,incr dns sl ool-ooc PKST frag-intcl/tr gran tex,sl chky-anhy/tr POR fl-rr xln ANHY & prtgs,dol/fr DOL cmt,mg-g ool-sl oom/tr intxl POR,FLOR-STN-CUT AA"

6980.00 7010.00 "LS AA,pred ool-sl oom-ooc GRNST,scat-occ intbd dns sl ool-ooc PKST/occ gran tex,chky-sl anhy/tr POR fl-rr xln ANHY,rr mic fos,dol/fr DOL cmt,mg-g ool-sl oom-fr intxl POR,g even mod bri-dull/scat bri yel FLOR,g brn-ltbrn-tr dkbrn & blk dd o STN,CUT AA"

7010.00 7030.00 "fast stmg-sl blooming mlky CUT"

DEPTH	LITHOLOGY

7010.00 7030.00 "LS ltbrn-tan-brn,tr dkbrn,crm-off wh,vfxl-gran-micsuc,micxl-crpxl,ool-sl oom-ooc GRNST,decr dns sl ool-ooc PKST/tr gran tex,sl chky-anhy/tr POR fl-prtgs,rr xln ANHY,dol/fr DOL cmt,POR-FLOR AA,g ltbrn-brn-tr dkbrn & blk dd o STN,g"

7030.00 7060.00 "scat spty bri yel FLOR,g brn-ltbrn/tr dkbrn & blk dd o STN,g fast-mod fast stmg mlky CUT"

7030.00 7060.00 "LS ltbrn-brn,occ tan,tr crm,vfxl-gran-micsuc,micxl-crpxl,ool-oom-sl ooc GRNST/tr agl mat ip,tr PKST AA/tr gran tex,sl chky-v sl anhy/rr POR fl-plty prtgs,rr mic fos,v rr xln ANHY,dol/tr DOL cmt,g ool-oom/tr intxl POR,g even mod bri-"

7060.00 7080.00 "LS AA,pred GRNST AA,scat-occ intbd dns sl ool-ooc PKST/occ gran tex,chky-sl anhy/tr POR fl-rr xln ANHY,rr mic fos,dol/tr DOL cmt,POR-FLOR AA,g brn-ltbrn-tr dkbrn & blk dd o STN,CUT AA"

7080.00 7110.00 "LS ltbrn-brn,occ tan-crm,tr dkbrn,off wh,AA,ool-sl oom-ooc GRNST,tr PKST AA/tr gran tex,chky-sl anhy/tr POR fl-prtgs,rr xln ANHY,sl dol/tr DOL cmt,g ool-sl oom/tr intxl POR,FLOR-STN-CUT AA"

7110.00 7140.00 "LS AA,vfxl-gran-micsuc,micxl-crpxl,rr xln frag,ool-sl oom-ooc GRNST/rr agl mat,tr PKST intcl AA,sl chky-anhy/tr POR fl-xln ANHY-rr prtgs,dol/fr DOL cmt,POR-FLOR-STN AA,g fast-tr sl blooming mlky CUT"

7140.00 7170.00 "LS,bn-ltbn-tn-tr dkbn,mott,pred vf xln,grn-microsuc mtx,occ sl dolo,pred ool oom/ooc mdns GRNST & v rr dns PKST,sme calc/chlky/anhy fld casts;pred pr-mg oom/ooc to intrxln fab POR ip,mg-even mbri-bri yelgld FLOR,mg-bn-ltbn mtx o STN"

7170.00 7209.00 "LS,ltbn-bn-occ dkbn,mott,pred mic-vf xln,rr crypt xln,pred ool sl oom/ooc GRNST w/rr dns sl ool PCKST,v sl dol,tr calc frac flgs, smr foss frgs-Crin stem;pred interxln fab POR ip w/oom/ooc fab POR,mg-bn o STN,even dul-mbri-spty bri FLOR,mg-slo strmg CUT"

FORMATION TOPS

OPERATOR: MOBIL
WELL NAME: RATHERFORD UNIT #20-14 SE 1-A HORIZONTAL LATERAL LEG #3

FORMATION NAME		SAMPLES MEASURED DEPTH	SAMPLES TRUE VERTICAL DEPTH	DATUM KB:4870'
LOWER ISMAY		5545'	5545'	-675'
GOTHIC SHALE		5601'	5592'	-722'
DESERT CREEK		5620'	5604'	-734'
UPPER DC 1-A POROSITY BENCH		5636'	5612'	-742'

The Gothic Shale was penetrated at a measured depth of 5601', true vertical depth 5592', and gradationally underlies the Lower Ismay. The top of the Gothic was picked at a decrease in the penetration and a significant increase in the amount of black carbonaceous shale in the cuttings. This shale member of the Upper Paradox Formation was seen to be twelve feet thick in this southeasterly direction. This shale is black to dark gray shale, carbonaceous, occasionally grainy to silty, soft to slightly firm, sooty, slightly fissile, subblocky to subplaty, calcareous to slightly dolomitic and slightly micaceous. Very thin partings of dense, very slightly argillaceous, occasionally dolomitic, cream to tan limestones and clean to very argillaceous, limey, brown to medium gray brown dolomites were noted in this shale member. The Gothic overlays the top of the Desert Creek Member with a sharp contact.

The top of the Desert Creek Member of the Upper Paradox Formation was picked at a measured depth of 5620', 5604' true vertical depth, based on gamma-neutron logs and increase in the amount of dense limestone packstone in the samples. This transition zone was predominately a dense limestone packstone, which was occasionally very argillaceous and very slightly fossiliferous in part and had thinly interbedded argillaceous limey dolomites and very thin black carbonaceous shale partings. The limestones of the transition zone were light brown, cream, white, light gray and occasionally medium to dark brown. This packstone facies was cryptocrystalline to microcrystalline, moderately dense, chalky to anhydritic and very slightly dolomitic in part. Thinly interbedded carbonaceous shales and brown sucrosic dolomites, anhydrite crystals and off-white chalky matter were associated with this interval. The transition zone had poor to a slight trace of intercrystalline porosity, but no visible shows. Near the base of the transition zone the dense limestones became increasingly oolitic and graded in to the oolicastic to oomoldic limestones of the Desert Creek Upper 1-A porosity bench.

The top of the Desert Creek Upper 1-A porosity zone was encountered at a measured depth of 5636', true vertical depth of 5612', with a horizontal displacement of approximately 35'. The top was picked on the lithology becoming predominately a good oolicastic to oomoldic limestone grainstone with a significant increase in the penetration rate. This oolicastic to oomoldic limestone grainstones marked the upper 1-A porosity zone and was the predominant facies throughout the entire length of the lateral. This limestone grainstone facies was tan, light brown, brown and occasionally cream, microcrystalline to very fine crystalline, with a trace of granular to slightly microsucrosic texture, very slightly dolomitic, slightly chalky and anhydritic, and very slightly dolomitic. Associated with this grainstone facies were anhydrite crystals, oolites, rare pellets, very rare fossil fragments, some carbonacous matter, very rare algal development and trace calcite fracture fill. The grainstone facies had a moderately good oomoldic to oolicastic fabric porosity with intercrystalline fabric porosity in part. The sample shows were moderately fair to fair and associated with a black bitchimum stain* coating casts and fracture fill. The cut was a fast blooming to fair slow streaming diffused cut and the fluorescence was an even moderately bright to bright yellow-gold.

The curve portion of the lateral was completed at a measured depth of 5690', true vertical depth 5625', with a horizontal displacement of 88', bearing 135 degrees, and an inclination of 89.8 degrees, on November 20, 1998, in the Desert Creek 1-A porosity bench of the Upper Paradox Formation. At this point a trip was made to lay down the curve assembly and pickup the lateral assembly.

Drilling of the southeast lateral resumed on November 21, 1998 in the Upper Desert Creek 1-A porosity bench of the Upper Paradox Formation. The lateral was slid for the first 36' in order to turn the well path and to put the lateral assembly out far enough to begin rotating. The lateral began in a good oolicastic to oomoldic grainstone facies and was homogenous throughout the entire length of the lateral. A very slight algal development was only seen in the curve section and was not represented in the samples for the entire length of the lateral. This grainstone facies was tan, light brown to infrequently brown and cream, microcrystalline to very finely crystalline, granular to microsucrosic, slightly dolomitic, with occasionally calcite and anhydrite cement, moderately dense to very rarely friable, uncommonly chalky and moderately firm in part. Associated with the grainstone

facies was thinly interbedded dense slightly platy occasionally oomoldic packstone, anhydrite crystals, off-white chalky matter, carbonacous matter, buff to light brown chert fragments and calcite fracture fill. These grainstones had a fair to good oomoldic to oolicastic fabric porosity with intercrystalline fabric porosity in part. The sample shows moderately good to good, fluorescence was a moderately bright to bright yellow-gold and a moderately fair light brown to brown oil stain, with trace to poor black bitchimum* stain, and a moderate to moderately fair fast to slow streaming cut was predominate throughout the lateral.

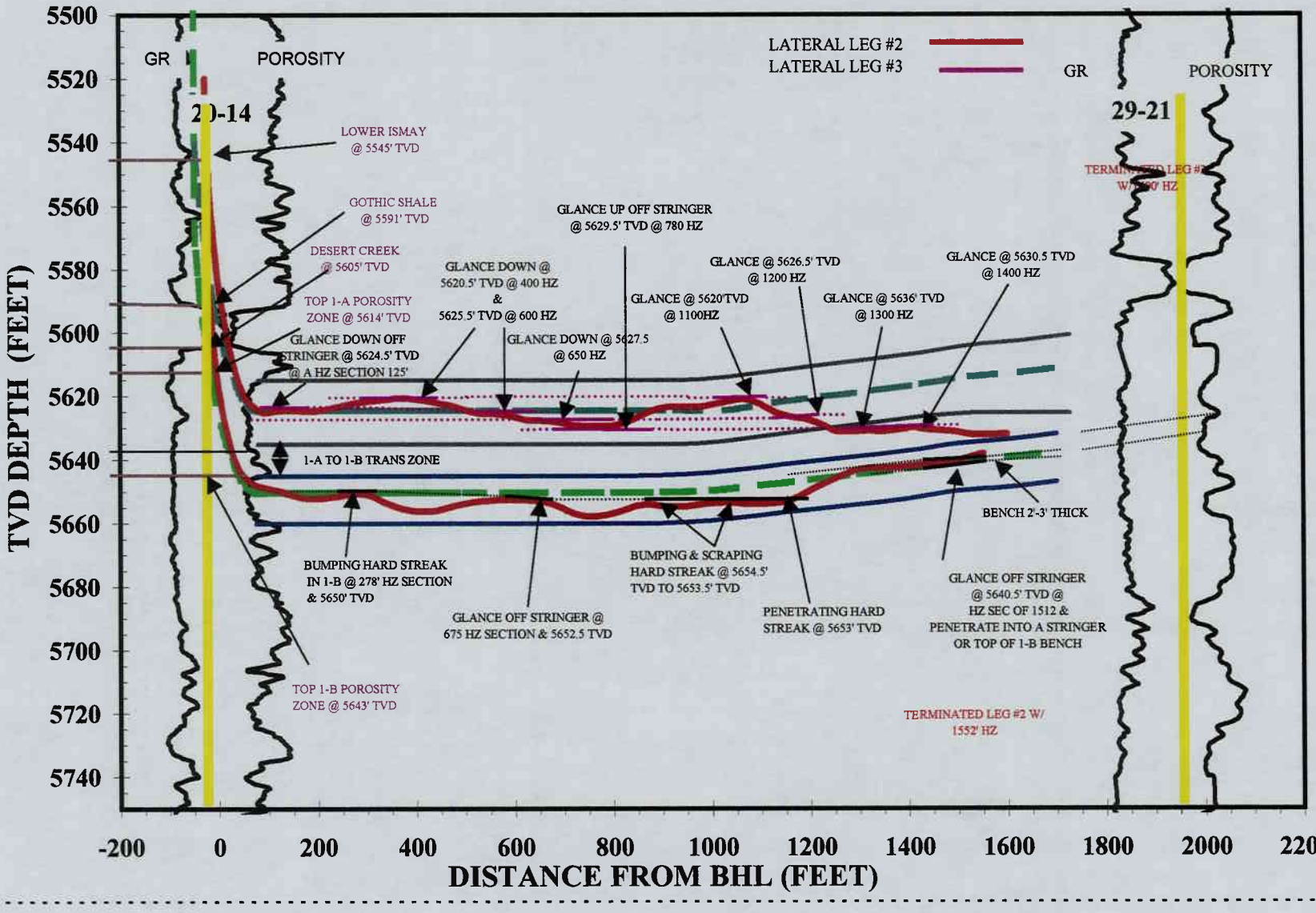
The Desert Creek 1-A porosity bench southeast lateral leg #3 was approximately 20 feet thick based on gamma-neutron log at the 20-14 well bore. The lateral was penetrating towards the 29-21 well bore whose gamma-neutron log showed a developed stringer separating the 1-A bench into two payzones. This southeast lateral penetrated and maintained the upper payzone, which was not horizontal and proved to be quite interesting during the course of drilling. The bit glanced up off what is suggested to be a dense packstone stringer at a true vertical depth of 4622.5' at a horizontal displacement of 181 feet. The bit was brought back to horizontal but glanced down at true vertical depth 5620.5' at a horizontal displacement of 370 feet. The bit glanced down again at true vertical depth 5622.8' at a horizontal displacement of 465 feet, glanced down again at true vertical depth 5626.4' at a horizontal displacement of 592 feet and glanced down again at true vertical depth 5627.0' at a horizontal displacement of 656 feet. The bit then slowly started to build back across the 1-A porosity bench. The bit glanced up off a stringer at a true vertical depth 5628.7' at a horizontal displacement of 814 feet were it continued to build again back across the bench. A true vertical depth 5620' at a horizontal displacement of 1066 feet the bit bounced off the top of the bench and dropped from 90 degrees to 84 degrees. The bit was slide straight up to control the angle but again bounced off the top or glanced off a stringer at a true vertical depth 5627' at a horizontal displacement of 1191 feet. At this point the bit was again slide straight up to control the drop and for the remainder of the lateral glance up and down in 2-3 foot porosity zone, which suggested the bit was caught between to dense packstone facies stringers.

From the beginning of the 20-14 southeast lateral leg #3 to its termination on November 22, 1998, at a measured depth of 7209', 5631.7' true vertical depth and a horizontal displacement of 1600', the Desert Creek 1-A porosity bench was a consistent homogenous oomoldic to oolicastic granstone faices. The predominant grainstone facies had associated dense packstone stringers, which forced the bit up and down during penetration, but never caused the bit to drill out of the bench. Oil and gas shows were moderately good to good and were consistent with what is to expected when drilling the reduced to good oomoldic to oolicastic fabric porosity. This lateral will contribute to production in the Ratherford Unit and the overall performance of the field.

*The black residual staining has been called by Dr. Dave Eby & others as "bitchimum" and is also known as "dead oil" ("dd o stn" on mud logs). This staining is associated with the movement of oil over long periods of time and is a good indicator of producable hydrocarbons when associated with productive porosities, but can also be found in porosities that have been filled by anhydrites and other material at later dates.

ROCKY MOUNTAIN GEO-ENGINEERING CORP. 2450 INDUSTRIAL BLVD. GRAND JUNCTION, CO 81505 (970) 243-3044

MOBIL, Ratherford #20-14, Southeast Lateral



MOBIL

RATHERFORD UNIT #20-14
SE HORIZONTAL LATERAL LEG #2
1-B POROSITY BENCH
DESERT CREEK MEMBER
PARADOX FORMATION
SECTION 20, T41S, R24E
SAN JUAN, UTAH
43-037-15747

GEOLOGY REPORT
prepared by
LUKE TITUS
PASON/ROCKY MOUNTAIN GEO-ENGINEERING CORP.
GRAND JUNCTION, COLORADO
(970) 243-3044

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WELL SUMMARY

OPERATOR:	MOBIL EXPLORATION & PRODUCTION U.S. INC.
NAME:	RATHERFORD UNIT #20-14 SE HORIZONTAL LATERAL LEG #2 IN 1-B POROSITY BENCH, DESERT CREEK
LOCATION:	SECTION 20, T41S, R24E
COUNTY/STATE:	SAN JUAN, UTAH
ELEVATION:	KB:5105' GL:5093'
SPUD DATE:	11/13/98
COMPLETION DATE:	11/18/98
DRILLING ENGINEER:	SIMON BARRERA
WELLSITE GEOLOGY:	DAVE MEADE / MARVIN ROANHORSE/LUKE TITUS
MUDLOGGING ENGINEERS:	DAVE MEADE / MARVIN ROANHORSE/LUKE TITUS
CONTRACTOR:	BIG "A" RIG 25
TOOLPUSHER:	J. DEES
HOLE SIZE:	4 ¾"
CASING RECORD:	SIDETRACK IN WINDOW AT 5371' MEASURED DEPTH
DRILLING MUD:	M-I
ENGINEER:	MIKE PITTSINGER
MUD TYPE:	FRESH WATER & BRINE WATER W/ POLYMER SWEEPS
DIRECTIONAL DRILLING CO:	SPERRY-SUN
ELECTICAL LOGGING:	NA
TOTAL DEPTH:	7090' MEASURED DEPTH; TRUE VERTICAL DEPTH-5637.9'
STATUS:	L.D. TOOL & PREAPRE FOR SE LATERAL LEG #3

DRILLING CHRONOLOGY
RATHERFORD UNIT #20-14
1-B SE HORIZONTAL LATERAL LEG #2

DATE	DEPTH	DAILY	ACTIVITY
11/13/98	0'	0'	RIG UP-UNLOAD PIPE BASKET & TALLEY-P.U. 20 DRLG COLLARS & 156 JNTS AOH FROM RACK
11/14/98	0'	0'	P.U. D.P. OFF RACK & MAKE UP WHIPSTOCK #2-TIH-R.U. GYRO-
11/15/98	0'	0'	RUN GYRO-SET WHIPSTOCK @ 5544'-SHEAR @ 15K-PULL GYRO-SWIVEL UP-BRK CIRC-M.U. STR MILL-TIH-MILL F/5544' T/5548'-TOOH-L.D. STR MILL-P.U. WATERMELON MILLS-TIH-MILL F/5548' T/5551'
11/16/98	5551'	307'	PMP SWEEP & CIRC. OUT-TOOH-L.D. MILLS-M.U. CRVE ASSEM.-TEST & ORIENT-TIH-BRK CIRC-SWIVEL UP-R.U. GYRO & RUN GYRO DATA-TIME DRLG F/5551' T/5554-DIR DRLG F/5554' T/5592'-R.D. GYRO DATA-DIR DRLG & SRVYG F/5592' T/5707'- TD CRVE-PMP SWEEP & CIRC OUT SMPLS-TOOH-L.D. CRVE ASSEM.-P.U. LAT ASSEM.-TEST & ORIENT-TIH-DIR DRLG & SRVYG F/5707' T/5858'
11/17/98	5858'	907'	DIR DRLG & SRVYG F/5858' T/6765'
11/18/98	6765'	TD	DIR DRLG & SRVYG F/6765' T/7090'-TD LATERAL @ 1:00 PM (MST)-PMP SWP-CIRC OUT SMPLS-PMP 20 BBLS BRINE-TOOH TO WINDOW-PMP 20 BBLS BRINE-TOOH-PRPARE FOR LATERAL LEG #3

DAILY ACTIVITY

Operator: MOBIL
Well Name: RATHERFORD UNIT #20-14 SE 1-B HORIZONTAL LATERAL LEG #2

DATE	DEPTH	DAILY	DATE	DEPTH	DAILY
11/13/98	0'	0'			
11/14/98	0'	0'			
11/15/98	MILLING	0'			
11/16/98	5551'	307'			
11/17/98	5858'	907'			
11/18/98	6765'	TD			

BIT RECORD

OPERATOR: MOBIL
WELL NAME: RATHERFORD UNIT #20-14 SE 1-B HORIZONTAL LATERAL LEG #2

RUN	SIZE	MAKE	TYPE	IN/OUT	FTG	HRS	FT/HR
#1	4 3/4"	STC	MF-3P	5551'/ 5707'	156'	10.5	15
(RR) #2	4 3/4"	STC	MF-3P	5707'/ 7190'	1483'	39.5	38

MUD REPORT

OPERATOR: MOBIL
WELL NAME: RATHERFORD UNIT #20-14 SE 1-B HORIZONTAL LATERAL LEG #2

DATE	DEPTH	WT	VIS	PLS	YLD	GEL	PH	WL	CK	CHL	CA	SD	OIL	WTR
11/13/98	N/A													
11/14/98	N/A													
11/15/98	5551'	8.4	26	1	1	0/0	8.0	NC	NC	1100	120	0%	0%	100%
11/16/98	5551'	8.5	26	1	1	0/0	8.0	NC	NC	19000	120	0%	0%	100%
11/17/98	6100'	8.5	26	1	1	0/0	8.0	NC	NC	19000	120	0%	0%	100%
11/18/98	7125'	8.5	26	1	1	0/0	12.0	NC	NC	17000	120	0%	0%	100%

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SPERRY-SUN DRILLING SERVICES
SURVEY DATA
Customer ... : Mobil (Utah)
Platform ... : RATHERFORD UNIT
Slot/Well .. : BA25/20-14 2A1

MEASURED DEPTH	ANGLE DEG	DIRECTION DEG	TVD FEET	NORTHINGS FEET	EASTINGS FEET	VERTICAL SECTION	DOG LEG
5500	0.35	313.92	5499.77	27.7 N	11.52 W	-28.63	0
5544	0.37	335.92	5543.77	27.92 N	11.68 W	-28.9	0.32
5551	4.2	140	5550.76	27.75 N	11.52 W	-28.66	65.1
5561	10.2	156.08	5560.68	26.66 N	10.93 W	-27.44	62.72
5571	16	160.33	5570.42	24.55 N	10.1 W	-25.3	58.76
5581	21.9	162.3	5579.87	21.47 N	9.07 W	-22.28	59.34
5591	27.2	167	5588.96	17.46 N	7.99 W	-18.51	56.44
5601	30.7	164	5597.71	12.78 N	6.77 W	-14.14	37.88
5611	35.4	156.9	5606.1	7.66 N	4.93 W	-9.03	60.83
5621	41.1	154.6	5613.95	2.02 N	2.38 W	-3.08	58.74
5631	47.7	151.6	5621.09	4.21 S	0.79 E	3.73	69.24
5641	53	152.1	5627.47	11 S	4.42 E	11.27	53.14
5651	58.6	152	5633.09	18.3 S	8.3 E	19.35	56.01
5661	64.8	149.9	5637.82	25.99 S	12.58 E	27.99	64.69
5671	70.9	148.2	5641.59	33.93 S	17.34 E	37.14	63
5681	76.6	146.7	5644.39	42.02 S	22.5 E	46.65	58.79
5707	88.5	143.4	5647.76	63.1 S	37.25 E	72.28	47.46
5754	87.2	137.7	5649.52	99.35 S	67.08 E	119.23	12.43
5786	87.4	136.2	5651.03	122.71 S	88.9 E	151.14	4.72
5818	89.3	137.1	5651.95	145.97 S	110.86 E	183.07	6.57
5849	90.9	135.7	5651.9	168.42 S	132.23 E	214.01	6.86
5881	91.8	138.5	5651.14	191.85 S	154.01 E	245.96	9.19
5913	91.1	139.6	5650.33	216.01 S	174.97 E	277.94	4.07
5945	86	137.6	5651.14	240 S	196.12 E	309.91	17.12
5976	85.7	137.5	5653.39	262.81 S	216.99 E	340.8	1.02
6008	87.8	136.9	5655.2	286.25 S	238.7 E	372.71	6.82
6040	89.2	136.4	5656.04	309.51 S	260.65 E	404.64	4.65
6071	91.6	139	5655.82	332.43 S	281.51 E	435.61	11.41
6103	92.4	141	5654.7	356.93 S	302.07 E	467.59	6.73
6135	91.4	140.8	5653.64	381.75 S	322.24 E	499.57	3.19
6167	91.3	142.7	5652.89	406.87 S	342.04 E	531.54	5.94
6198	90.1	141.9	5652.51	431.4 S	361 E	562.52	4.65
6230	90.4	142.9	5652.37	456.75 S	380.52 E	594.49	3.26
6262	89.4	141.7	5652.43	482.07 S	400.09 E	626.46	4.88
6294	88.5	141.7	5653.01	507.18 S	419.92 E	658.44	2.81

SPERRY-SUN DRILLING SERVICES
SURVEY DATA
Customer ... : Mobil (Utah)
Platform ... : RATHERFORD UNIT
Slot/Well .. : BA25/20-14 2A1

MEASURED DEPTH	ANGLE DEG	DIRECTION DEG	TVD FEET	NORTHINGS FEET	EASTINGS FEET	VERTICAL SECTION	DOG LEG
6326	85.6	139.8	5654.66	531.92 S	440.14 E	690.39	10.83
6357	86.6	140.5	5656.77	555.67 S	459.95 E	721.32	3.93
6389	90.2	139.6	5657.66	580.18 S	480.49 E	753.3	11.6
6421	91.8	139.8	5657.1	604.58 S	501.18 E	785.29	5.04
6453	92.5	139.2	5655.9	628.9 S	521.95 E	817.27	2.88
6484	93.3	139.2	5654.33	652.34 S	542.18 E	848.23	2.58
6515	88.2	137.3	5653.93	675.45 S	562.82 E	879.2	17.56
6547	89.2	137.5	5654.65	699 S	584.47 E	911.16	3.19
6579	91	137.6	5654.6	722.61 S	606.07 E	943.13	5.63
6611	91.1	136.8	5654.01	746.09 S	627.8 E	975.08	2.52
6642	90.9	136.1	5653.47	768.55 S	649.16 E	1006.02	2.35
6674	89.6	136.4	5653.33	791.67 S	671.29 E	1037.95	4.17
6705	89	135.2	5653.71	813.89 S	692.9 E	1068.86	4.33
6736	90.8	134.7	5653.76	835.79 S	714.84 E	1099.74	6.03
6767	90.6	133.8	5653.39	857.42 S	737.04 E	1130.58	2.97
6798	93	134.5	5652.41	879 S	759.27 E	1161.4	8.06
6829	95.2	133.8	5650.2	900.54 S	781.45 E	1192.16	7.45
6860	93.7	135.2	5647.79	922.2 S	803.5 E	1222.92	6.61
6892	94.4	135.9	5645.53	944.98 S	825.85 E	1254.75	3.09
6924	92.7	139.6	5643.55	968.62 S	847.32 E	1286.65	12.7
6956	90.4	138	5642.68	992.69 S	868.39 E	1318.63	8.75
6986	89.8	138	5642.63	1014.98 S	888.46 E	1348.61	2
7018	91.1	140.6	5642.38	1039.24 S	909.33 E	1380.61	9.08
7050	91	140.5	5641.79	1063.94 S	929.66 E	1412.6	0.44
7082	90.5	139.4	5641.37	1088.44 S	950.24 E	1444.6	3.78
7112	90.4	139	5641.14	1111.15 S	969.85 E	1474.59	1.37
7144	93.6	142	5640.02	1135.82 S	990.18 E	1506.56	13.7
7157	92.5	141.2	5639.33	1145.99 S	998.25 E	1519.54	10.46
7190	92.5	141.2	5637.89	1171.68 S	1018.91 E	1552.5	0

THE DOGLEG SEVERITY IS IN DEGREES PER 100 FEET.
N/E COORDINATE VALUES GIVEN RELATIVE TO WELL HEAD.
TVD COORDINATE VALUES GIVEN RELATIVE TO WELL HEAD.
THE VERTICAL SECTION ORIGIN IS WELL HEAD.
THE VERTICAL SECTION WAS COMPUTED ALONG 140 (TRUE).
CALCULATION METHOD: MINIMUM CURVATURE.

LAST SURVEY ENTERED IS PROJECTED TO BIT AT TD.

SAMPLE DESCRIPTIONS

OPERATOR: MOBIL
WELL NAME: RATHERFORD UNIT #20-14 SE 1-B HORIZONTAL LATERAL LEG #2

DEPTH	LITHOLOGY

5550.00 5560.00 "LS tan-ltbrn,occ crm-wh,crpxl-micxl,rthy,occ chk,dns-cln ip,v sl dol-sl anhy,shy ip,tt,NFSOC,w/thn scat brn-mbrn micxl-crpxl DOL lams-incl,lmy ip,sl-v arg,mrly ip,tt,NFSOC,scat sbblky-sbplty,fis SH frag,blk-dkgy,calc-sl dol,mica,v sl slty & CMT frag"

5560.00 5570.00 "LS AA,bcmg occ ltgy,pred tan-ltbrn,v arg sl slty,dol ip,tt,NFSOC w/scat thn DOL AA NFSOC,& rr thn blk carb SH ptgs"

5570.00 5580.00 "LS, ltbn-tn-crm-occ ltgy,mic-vf xln,slty,occ rthy/arg ip,occ dol ip,chlky/anhy,SH AA,tr dkbn-suc/microsuc DOL,NFSOC"

5580.00 5590.00 "LS AA,plty,slty,sl arg & rthy,pred chlky to anhy ip,mdns-tt mtx,rr intrbd dkbn-blk SH,DOL AA,prd compact xln fab POR"

5590.00 5600.00 "LS grdg to SH,LS-ofwht-crm-ltbn,mic-vf xln,slty,chlky/anhy,v sl rthy,rr ltbn CHT frgs,SH-dkbn-blk,carb,rr dkbn DOL"

5600.00 5610.00 "SH blk-dkbn,plty-sbplty,occ fiss,sft-frm,sooty,carb,calc-sl dol,rthy/arg,mica,sl slty to slty,sme micro-pyr incl,rr LS AA,rr DOL AA"

5610.00 5620.00 "LS bn-ltbn-crm-ofwht,mic-vf xln,tr crypt,mdns-dns mtx,sl dol to dol ip,occ slty,sl rthy,chlky,tr dkbn DOL,SH AA,scat mbri yel FLOR,no CUT,no-vis to v pr o STN,intrxln fab POR"

5620.00 5640.00 "LS ltbn-bn-tn-ofwht,mott,mic-vf xln,mdns mtx ip,microsuc-grn,pred oom/ooc ool GRNST w/tr dns sl plty sl ool PCKST,sl dol,sl chlky,rr ANHY xls;pred reduced to mf occ g-oom/ooc w/intrxln fab POR ip,m-slo CUT,mf-f mbri FLOR,pred m-mf ltbn w/blk dd o STN"

5640.00 5650.00 "LS ltbn-tn-crm-rr ltgy/gy,mott,mic-vf xln,grn-microsuc-mdns mtx ip,sl dol,ool,rr foss frgs,tr dns occ chlky & plty PKST,pred oom/ooc mdns ool GRNST"

5650.00 5660.00 "LS AA,pred reduced oom to ooc fab POR w/intrxln fab POR ip,m-mf slo strmg dif milky ring CUT,mf-f mbri-bri yelgld FLOR"

5660.00 5670.00 "LS,pred oom/ooc ool GRNST w/intrbd dl ool to ool dns PKST,v sl chlky/anhy-rr ANHY xls,rr carb mat,pred m-mf ltbn-mbn w/blk dd o STN flg casts"

5670.00 5680.00 "LS AA,ltbn-mbn-crm,mott,mic-vf xln,v rr crypt xln,mdns mtx ip,grn-microsuc mtx,v sl dol;pred oomoldic to interxln fab POR,tr ooc fab POR"

DEPTH	LITHOLOGY

5680.00 5690.00 "LS AA,pred ool rich GRNST to tr sl ool dns PKST,pred interxln-ool to oomoldic to oolicastic fab POR,mg-slo strmg dif milky ring CUT,mf-f ltbn-bn o STN"

5690.00 5707.00 "LS ltbn-bn-occ tn,mott,mic-vf xln,mdns-grn-microsuc mtx,pred ool oom/ooc GRNST,tr dns sl ool to ool PKST,v rr SH prtgs,v rr ANHY & chlky mat,sme calc-chlky fld casts;POR AA,CUT AA,f-even mbri yelgld FLOR,mf-f ltbn-mbn o STN w/blk dd o STN flg casts"

5707.00 5730.00 "LS tan-ltbrn,occ brn,micxl-vfxl,occ gran-micsuc,pred ooc-oom GRNST,w/scat dns ltbrn crm-wh crpxl sl ool PKST intcl,v sl dol,occ ANHY xl-v rr POR fl,mfr-fr intxl-mg ool POR,fr bri-tr dull yel FLOR,mfr-fr brn STN,tr blk dd o STN,fr mod fast-fast stmg CUT"

5730.00 5750.00 "LS AA,pred v g ooc-sl oom GRNST,w/scat crm-tan ooc brn sl ool plty-chk ip PKST,occ scat ANHY frag-POR fl,rr ANHY xl,tr DOL cmt,mg ool-fr intxl POR,fr-mg bri-tr dull yeL FLOR,mg brn-tr blk STN,mg mod fast-tr fast stmg mlky CUT"

5750.00 5760.00 " LS AA,pred brn,incr gran-micsuc tex,sl suc,incr intxl POR,pred POR-FLOR-STN-CUT AA"

5760.00 5770.00 "LS pred ooc-oom GRNST,scat dns crm-tan,crpxl-micxl rthy-chk plty sl ool PKST frag-intcl,fr-mg intxl-ool POR,pred fr-mg bri-tr dull yel FLOR,fr-mg brn-mbrn STN,sl tr-tr blk dd o STN,fr-mg mod fast-fast stmg mlky CUT"

5770.00 5790.00 "LS tan-ltbrn,occ brn,micxl-vfxl,gran-micsuc ip,pred ooc-oom GRNST,scat ltbrn-crm-wh crpxl sl ool chk PKST intcl,dol ip,occ ANHY xl-rr POR fl,fr-mg intxl-ool POR,mg bri-tr dull yel FLOR,fr brn STN-tr blk dd o STN,fr mod fast-fast stmg mlky CUT"

5790.00 5820.00 "LS pred ooc-oom GRNST AA,incr amnt dns chk sl plty occ ool anhy-v anhy PKST frag w/depth,fr-mg ool-mfr intxl POR,fr-mg dull-bri yel FLOR,fr brn-tr blk STN,fr-mg mod fast-tr fast stmg mlky CUT"

5820.00 5840.00 "LS AA,decr amnt dns PKST intcl-frag POR-FLOR-STN-CUT AA"

5840.00 5860.00 "LS tan-ltbrn-brn,crpxl-vfxl,gran-micsuc ip,pred ooc-oom GRNST,scat brn crpxl ool chk PKST intcl-frag,occ DOL cmt,tr ANHY xl-v rr POR fl,fr-mg ool-tr intxl POR,mg bri-mfr dull yel FLOR,fr brn STN-tr blk dd o STN,fr-mg mod fast-fast stmg mlky CUT"

5860.00 5870.00 "LS AA,incr dns crpxl ool PKST intcl-frag,w/tr ANHY fl POR,sl DOL cmt,fr ool-tr intxl POR,fr dull-mfr bri yel FLOR,mfr-fr brn STN-sl tr blk dd o STN,mfr-fr mod fast-tr fast stmg-mg slow dif mlky CUT"

DEPTH	LITHOLOGY

5870.00 5900.00 "LS tan-ltbrn,occ brn,crpxl-vfxl,occ gran-micsuc,pred ooc-oom GRNST,scat ltbrn-brn crpxl chk ip ooc PKST intcl-frag,sl DOL cmt,tr ANHY xl-POR fl,fr-mg ool-tr intxl POR,mg bri-dull yel FLOR,mfr brn STN-rr blk dd o STN,fr-mg mod fast-fast stmg mlky CUT"

5900.00 5920.00 "LS AA,incr chk PKST frag-intcl,tr-mfr intxl POR-ool POR AA,FLOR-STN-CUT AA"

5920.00 5930.00 "LS tan-ltbrn,occ brn,micxl-vfxl,gran-micsuc ip,pred ooc-oom GRNST,rr ltbrn-brn-crm crpxl sl ool chk ip PKST intcl-frag,tr DOL cmt,tr ANHY xl-v rr POR fl,fr intxl-mg ool POR,mg bri-dull yel FLOR,fr brn STN-rr blk dd o STN,fr-mg mod fast-fast stmg mlky CUT"

5930.00 5950.00 "LS AA,incr dns crpxl PKST intcl-frag w/abnt ooc-ool fab mat,w/tr ANHY fl POR,sl tr DOL cmt,fr ool-tr intxl POR,fr dull-mfr bri yel FLOR,mfr-fr brn STN-sl tr blk dd o STN,mfr-fr mod fast-tr fast stmg-mg slow dif mlky CUT"

5950.00 5980.00 "LS brn-ltbrn,occ tan,micxl-vfxl,gran-micsuc ip,v sl suc,pred ooc-sl oom GRNST,tr tan-crm-ltbrn dns crpxl sl ooc-ool chk IP PKST frag-intcl,sl DOL cmt,tr ANHY incl-sl tr POR fl,mfr-mg intxl-ool POR,fr bri-tr dull yel FLOR,fr brn-rr blk STN,mg mod fast CUT"

5980.00 6010.00 "LS AA,pred g ooc-sl oom GRNST,w/scat v sl ooc anhy dol dns PKST intcl,rr ANHY xl-incl-v rr POR fl,fr-mg intxl-ool POR,FLOR-STN-CUT AA"

6010.00 6040.00 "LS AA,sl incr gran-micsuc-v rr suc tex,pred g sl ooc-oom GRNST,w/scat dns chk PKST frag-intcl-w/occ sl ooc-ool tex,fr intxl POR-ool POR AA,FLOR-STN-CUT AA"

6040.00 6070.00 "LS bn-ltbn,mott,mic-vf xln,mdns mtx,sl dol,pred sl ool to ool sl oom to ooc GRNST,scat dns chkly PKST,rr pel,rr microsuc mtx;pred f-intrxln-ool fab POR w/sl oom/ooc fab POR ip,g-fst dif CUT,even dul-mbri yel FLOR,m-mg bn mtx o STN,rr blk dd o STN res"

6070.00 6100.00 "LS AA,pred f-mg intrxln-ool fab POR w/sl oom/ooc fab POR ip,even dul-mbri to spty bri yelgld FLOR,fst blmg g CUT,mf-mg bn-dkbn mtx o STN"

6100.00 6130.00 "LS bn-ltbn-occ dkbn,sl mott,mic-vf xln,rr crypt xln,mdns-dns mtx,grn-sl microsuc mtx,pred sl ool to ool sl oom/ooc GRNST & scat dns sl ool PKST,v sl dol,rr calc frac flgs;pred mf-mg intrxln to ool w/scat m-oom/ooc fab POR ip"

6130.00 6160.00 "LS AA,mg-bn-dkbn mtx o STN w/rr blk dd o STN flg ool casts,even dul-mbri yelgld FLOR,mg-fst to f-slo strmg dif mlky ring CUT"

DEPTH	LITHOLOGY

6160.00 6190.00 "LS bn-ltbn-rr tn,sl mott,mic-vf xln,pred ool GRNST,mdns mtx ip-grn-microsuc ip,v sl dol-anhy,poss sme alg dev,rr carb mat,tr calc/anhy fld casts;pred mf-mg intrxln-ool w/scat pr-mg oom/ooc fab POR,even dul-mbri-spty bri yelgld FLOR,mg-bn mtx o STN"

6190.00 6220.00 "LS pred bn-mbn-tr dkbn-ltbn,sl mott,mdns-tr dns mtx,grn-sl microsuc mtx,v sl dol,v rr calc frac flgs & carb SH prtgs,occ ool rich-poss intrclstc ip;pred mg-intrxln-ool to scat pr-mg oom & occ ooc fab POR,mbri yel FLOR,g-fst blmg mlky ring CUT,mg-o STN"

6220.00 6240.00 "LS AA,fri-sl incr in oom/ooc fab POR w/a intrxln fab POR ip-ool fab POR ip,mg-bn-dkbn o STN w/tr blk dd o STN coating frac flgs & ool/foss casts,even-dul-mbri to spty bri yelgld FLOR,fst-blmg CUT"

6240.00 6250.00 "LS bn-mbn-occ dkbn,sl mott,mic-vf xln,mdns mtx ip,grn-microsuc mtx ip,pred sl ool sl oom/ooc GRNST w/intrbd dns occ sl chlky sl ool PCKST"

6250.00 6280.00 "LS ltbn-tn-bn-occ dkbn,sl mott,mic-vf xln,grn-microsuc mtx w/a mdns mtx ip,pred ool sl oom/ooc intrxln GRNST w/tr dns sl ool dns occ chlky/rthy PKST;mg-intrxln to ool w/sme oom/ooc fab POR,even dul-mbri yelgld FLOR,mf-mg ltbn-bn o STN-tr blk res"

6280.00 6310.00 "LS ltbn-mbn-tn,rr dkbn,mic-pred vf xln,mdns mtx ip,grn-microsc mtx,pred sl ool w/sme sl alg dev GRNST,tr ANHY xls-sl anhy-mg interxln-sl ool fab POR,decr in oom/ooc fab POR"

6310.00 6340.00 "LS AA,pred mf-mg intrxln fab POR,tr microsuc/vug-ool fab POR,v rr oom/ooc fab POR,g-fst blmg mlky ring CUT,mg-mbri-spty bri yelgld FLOR,mf-mg ltbn-bn w/tr blk dd o STN"

6340.00 6370.00 "LS bn-ltbn-dkbn-tn,sl mott,mic-pred vf xln,mdns mtx ip,grn-microsuc-rr suc mtx,pred sl ool to occ ool v sl oom/ooc GRNST,scat dns PKST,tr ANHY xls-sl anhy PKST,v sl dol cmt,rr calc frac flgs;pred mg-intrxln-sl ool fab POR w/fri oom/ooc fab POR"

6370.00 6400.00 "LS AA,even dul-mbri yelgld FLOR,spty bri yel FLOR,fst-dif to f-slo strmg sl mlky ring CUT,mf-mg ltbn-bn mtx o STN, tr blk dd o STN"

6400.00 6430.00 "LS bn-ltbn-tn-occ crm,mic-pred vf xln,mdns-grn-microsuc mtx,pred ool GRNST w/tr dns dkbn PKST,v sl dol,sl anhy/chlky,rr ANHY xls,rr carb mat;pred mg-intrxln to ool fab POR,mf-f ltbn-bn o STN w/sme blk dd o STN,f-even dul-mbri FLOR,fst dif CUT"

6430.00 6460.00 "LS AA,pred f-mg intrxln-ool fab POR,tr ooc/oom fab POR ip,fr-even dul-mbri to spty bri yelgld FLOR,fst blmg g CUT,mf-mg bn-dkbn mtx o STN w/a blk dd o STN"

DEPTH	LITHOLOGY

6460.00 6490.00 "LS bn-dkbn-ltbn,sl mott,mic-vf xln,grn-microsuc mtx,pred sl ool & v sl oom/ooc GRNST w/dns sl chlky/anhy PKST,rr ANHY xls,poss sme alg dev;pred f-mg intrxln fab POR & ool fab POR,decr in fast CUT to dif f-mg slo strmg mlky CUT,mf-mg bn-ltbn mtx o STN"

6490.00 6510.00 "LS bn-ltbn-rr tn,sl mott,mic-vf xln,pred ool GRNST,mdns mtx ip-grn-microsuc ip,v sl dol-anhy,poss sme alg dev,rr carb mat,tr calc/anhy fld casts;pred mf-mg intrxln-ool w/scat pr-mg oom/ooc fab POR,even dul-mbri-spty bri yelgld FLOR,mg-bn mtx o STN"

6510.00 6520.00 "LS brn-ltbrn,micxl-vfxl,sl gran,pred ooc-sl oom GRNST,scat tr dns v sl ool crpxl PKST intcl-frag,rr DOL cmt,occ ANHY POR fl,v rr poss alg mat,mfr-mg intxl-ool POR,fr-mg dull-bri yel FLOR,mfr-fr brn-rr blk STN,fr mod fast-mg slow stmg mlky CUT"

6520.00 6550.00 "LS AA incr gran tex,sl incr dns crpxl sl ool-v alg PKST intcl,fr-mg intxl-fr ool POR,mg dull-fr bri yel FLOR,mfr-fr ltbrn-brn STN-tr blk dd o STN,fr-mg slow-mfr mod fast stmg mlky CUT"

6550.00 6580.00 "LS AA incr dns crpxl v sl ool PKST intcl-lams,incr ANHY xl-frag-tr POR fl,decr intxl-ool POR,mfr-fr dull-tr bri yel FLOR,mfr ltbrn-brn STN-sl tr blk dd o STN,mfr-fr mod fast-mg slow stmg mlky CUT"

6580.00 6600.00 "LS brn,occ ltbrn,crpxl-vfxl,gran-misuc ip,pred intbd ooc-sl oom GRNST & dns sl ool anhy PKST,scat mic fos,abnt ANHY fl intxl POR,sl dol,mfr-mg intxl-mfr ool POR,fr dull-tr bri yel FLOR,mfr brn-rr blk STN,mfr-fr slow-mod fast-rr fast stmg mlky CUT"

6600.00 6620.00 "LS AA,incr micsuc-v sl suc tex,incr GRNST,decr PKST-occ scat plty-chk frag-intxl,mfr-mg intxl-tr ool POR,fr-mg dull-mfr bri yel FLOR,fr-mg brn STN,sl tr blk dd o STN,mfr-fr slow-fast stmg mlky CUT"

6620.00 6640.00 "LS AA,occ scat intcl-intbd crm-tan,occ brn v sl ool chk-plty PKST,bcmg pred sl ooc-oom GRNST,mg intxl-mfr ool POR,FLOR-STN-CUT AA"

6640.00 6650.00 "LS brn-occ ltbrn,micxl-vfxl,gran-micsuc-rr suc tex,pred ooc-sl oom GRNST,w/v rr scat plty-chk occ ool crpxl PKST frag-intcl,sl anhy-v rr ANHY incl,tr DOL cmt,mg intxl-fr ool POR,mg dull-fr bri yel FLOR,fr brn STN-v rr blk dd o STN,mg mod fast stmg CUT"

6650.00 6680.00 "LS AA,w/v sl incr plty ltbrn-crm PKST intcl,scat trnsl ANHY incl-tr POR fl,pred intxl-mfr ool POR,mg dull-fr bri yel FLOR,fr brn STN,tr-mfr blk dd o STN,mg mod fast-tr fast stmg mlky CUT"

6680.00 6700.00 "LS AA,w/rr PKST frag-intcl,POR-FLOR-STN-CUT AA"

6700.00 6720.00 "LS brn-occ ltbrn,micxl-vfxl,gran-micsuc-rr suc tex,pred sl ooc-oom GRNST,w/tr scatcrm-wh plty-chk dns v sl ool crpxl PKST intcl,sl anhy-rr ANHY incl,rr DOL cmt,mg intxl-tr ool POR,mg dull-fr bri yel FLOR,fr brn STN-v rr blk dd o STN,mg mod fast stmg CUT"

DEPTH	LITHOLOGY

6720.00 6740.00 "LS AA,incr dns plty-chk ltbrn-crm-wh v sl ool anhy PKST intcl-frag-v rr lams,mfr ool-tr-mg intxl POR,mfr-fr dull-tr bri yel FLOR,mfr brn STN-tr blk dd o STN,sl tr-mg slow-mod fast stmg mlky CUT"

6740.00 6770.00 "LS brn-occ ltbrn,micxl-vfxl,gran-suc tex,pred sl ooc-oom GRNST w/intbd dns crm-ltbrn-wh plty-chk v sl ool crpxl PKST,v sl anhy-rr ANHY incl,rr DOL cmt,fr intxl-tr ool POR,fr dull-tr bri yel FLOR,mfr-fr brn STN-rr blk dd o STN,mg slow-mod fast stmg CUT"

6770.00 6780.00 "LS AA,pred intbd GRNST-PKST AA,POR-FLOR-STN-CUT AA"

6780.00 6800.00 "LS AA,incr dns PKST frag-lams,incr chk-plty,pred intxl POR,decr ool mat,v rr vis alg mat,tr-mfr intxl-sl tr ool POR,mfr-fr dull-rr bri yel FLOR,mfr brn-rr blk STN,mfr slow-tr mod fast stmg mlky CUT"

6800.00 6820.00 "LS AA,abnt dns crpxl-micxl some chk-plty v sl ool anhy rthy ip sl dol PKST frag-lams w/scat thn intbd sl ooc GRNST frag,tr-fr intxl-rr ool POR,tr-mfr dull-sl tr bri yel FLOR,mfr brn STN,v rr spty blk dd o STN,n-mfr slow-tr mod fast stmg mlky CUT"

6820.00 6850.00 "LS brn-ltbrn,micxl-vfxl,gran-micsuc.v sl suc tex,pred GRNST sl ooc-oom,w/scat plty-chk dns v sl ool crpxl PKST frag-intcl,anhy ip-v rr ANHY xl-incl,sl DOL cmt,mg intxl-fr ool POR,fr dull-bri yel FLOR,mfr brn STN-rr blk dd o STN,mg slow-mod fast stmg CUT"

6850.00 6860.00 "LS AA,pred brn v sl ooc-oom GRNST,w/scat dns pkty crpxl v sl ool anhy PKST intcl,fr-mg intxl-tr ool POR,fr dull-bri yel FLOR,fr brn STN-sl tr blk dd o STN,mg slow-mod fast stmg mlky CUT"

6860.00 6880.00 "LS bn-occ ltbn,pred vf xln,pred sl oom/ooc sl oom GRNST,tr dns sl chlky/anhy PKST,sl rthy,tr ANHY xls;pred mg-intrxln to sl ool fab POR w/sme scat oom/ooc fab POR,mf-slo dif strmg CUT,f-dul-mbri yelgld FLOR,pred f-bn o STN"

6880.00 6900.00 "LS AA,pred f-mg intrxln-ool fab POR w/sl oom/ooc fab POR ip,even dul-mbri to spty bri yelgld FLOR,fst blmg g CUT,mf-mg bn mtx o STN"

6900.00 6930.00 "LS bn-ltbn-dkbn,mic-pred vf xln,mdns mtx ip,grn-microsuc-rr suc mtx,pred sl ool to occ ool v sl oom/ooc GRNST,scat dns PKST,tr ANHY xls-sl anhy PKST,v sl dol cmt,rr calc frac flgs;pred mg-intrxln-sl ool fab POR w/fri oom/ooc fab POR"

6930.00 6960.00 "LS AA,even dul-mbri yelgld FLOR,spty bri yel FLOR,fst-dif to f-slo strmg sl mlky ring CUT,mf-mg ltbn-bn mtx o STN, tr blk dd o STN"

DEPTH		LITHOLOGY

6960.00 6990.00 "LS bn-dkbn-ltbn,sl mott,mic-vf xln,grn-microsuc mtx,pred sl ool & v sl oom/ooc GRNST & dns anhy PKST,rr ANHY xls,poss sme alg dev;pred f-mg intrxln fab POR & ool fab POR,decr in fast CUT to dif f-mg slo strmg mlky CUT,mf-mg bn-ltbn mtx o STN"

6990.00 7020.00 "LS bn-ltbn-tn,sl mott,pred vf xln,mdns mtx ip,grn-microsuc mtx,pred GRNST w/sme dns chlky PKST;FLOR AA,CUT AA,POR AA,mg-bn-ltbn o STN w/tr blk dd o STN"

7020.00 7050.00 "LS ltbn-bn-tn-occ crm,mic-pred vf xln,grn-microsuc mtx,poss sl alg dev,v sl dol & anhy,rr ANHY xls,scat dns PKST, pred sl oom/ooc mdns GRNST;pred mg-intrxln to ool fab POR w/scat pr-f oom/ooc fab POR,mg-bn o STN,even dul-mbri-spty bri FLOR,fst blmg CUT"

7050.00 7080.00 "LS AA,fri,pred mg-intrxln-sl ool fab POR w/poss sme oom/ooc fab POR,mf-f bn-ltbn o STN w/ v rr blk dd o STN res,dul-mbri yelgld FLOR,f-slo strmg CUT"

7080.00 7110.00 "LS ltbn-bn-occ dkbn & tn,mic-vf xln,grn mtx,pred GRNST,fri-pr smplr qlty,fst dif strmg CUT-mlky ring,dul-mbri yel FLOR,mf-mg intrxln fab POR,poss sme oom/ooc fab POR,f-mg ltbn-bn o STN"

7110.00 7140.00 "LS,fri,ltbn-bn-tn,vf xln,grn mtx-microsuc mtx,pred GRNST,sl anhy dns PKST,tr ANHY xls,rr carb mat,poss sme ool fab POR,pred mg-intrxln fab POR w/poss sme oom/ooc fab POR,FLOR AA,CUT AA,tr dkbn & dd o STN,pred mf-mg ltbn o STN"

7140.00 7160.00 "LS,ltbn-tn-bn,occ dkbn,mic-pred vf xln,grn mtx,fri,poss dol,pred GRNST,incr in ANHY xls;pred mg-intrxln-ool fab POR w/poss oom/ooc fab POR ip,fst blmg CUT,mg-ltbn-bn-tr dkbn o STN,tr blk dd o STN,even dul-spty mbri/bri yelgld FLOR(PR SPMLE QLTY)"

7160.00 7180.00 "LS AA,incr in dns chlky/anhy PKST,v pr smple qlty,tr ANHY xls-poss anhy/chlky,rr calc frac flgs,scat GRNST,decr in o STN,mf-dul-mbri yelgld FLOR,f-fst CUT"

7180.00 7190.00 "LS,pred PKST w/ dns mtx,fri,very pr-smpl qlty,pred compact-mf intrxln fab POR,decr in o STN-pred ltbn-tr bn,m-even dul-yelgld FLOR,fst strmg dif CUT"

FORMATION TOPS

OPERATOR: MOBIL
WELL NAME: RATHERFORD UNIT #20-14 SE 1-B HORIZONTAL LATERAL LEG #2

FORMATION NAME	SAMPLES MEASURED DEPTH	SAMPLES TRUE VERTICAL DEPTH	DATUM KB:4870'
LOWER ISMAY	5545'	5545'	-675'
GOTHIC SHALE	5593'	5590'	-720'
DESERT CREEK	5610'	5605'	-735'
UPPER DC 1-A POROSITY BENCH	5621'	5614'	-744'
TRANSITION ZONE OF 1-A & 1-B	5658'	5637'	-767
DESERT CREEK 1-B POROSITY BENCH	5677'	5643'	-773

GEOLOGICAL SUMMARY

AND

ZONES OF INTEREST

The Mobil Exploration and Production U.S., Inc., Ratherford Unit #20-14 Southeast Horizontal Lateral Leg #2 was a re-entry of the Mobil Ratherford Unit #20-14 located in Section 20, T41S, R24E, and was sidetracked in a southeasterly direction from 5551' measured depth, 5550' true vertical depth, on November 16, 1998. The lateral reached a measured depth of 7190', true vertical depth of 5638' at total depth, with a horizontal displacement of 1552' and true vertical plane of 141 degrees on November 18, 1998. The curve and lateral were drilled with fresh water and brine water with polymer sweeps as the drilling fluid. The proposed target line was used as a reference point throughout the lateral and gamma-neutron logs helped define contacts between the formations.

The objective of the Ratherford Unit #20-14 southeast lateral leg #2 was to penetrate and directional drill 1600' horizontally in the Desert Creek 1-B porosity bench, identify and define its lithology, evaluate the effective porosity and permeability, hydrocarbon and gas potential and overall thickness. The curve section began in the basal portion of the basal portion of the Lower Ismay carbonate cycle before encountering the typical stratigraphic sections that includes the Gothic Shale, Desert Creek transition zone, Desert Creek 1-A porosity bench. The 1-A / 1-B transition zone was penetrated next and the targeted Desert Creek 1-B porosity bench.

The Ratherford Unit #20-14 southeast leg #2 curve section began in the basal portion of the Lower Ismay carbonate cycle. The top of the Lower Ismay member of the Upper Paradox Formation was picked at a measured depth of 5545', true vertical depth 5445', based on gamma-neutron logs. The Lower Ismay was penetrated for approximately 40 feet in this southeast curve and was predominately limestone. The limestones were light gray, light gray brown, and light brown, brown, tan, cream and occasionally off-white. This limestone facies was cyrptocrystalline to very fine crystalline, moderately dense to dense, occasionally tight, silty to infrequently grainy, slightly dolomtic too dolomitic, uncommonly microsucrosic, slightly chalky and anhydritic, very slightly earthy, predominately clean and slightly platy in part. Associated with these limestone's were dark brown to brown microsucrosic dolomite stringers, dark brown to black shale partings, rare to trace anhydrite crystals, light brown to buff chert fragments, rare calcite fracture fill and very rare fossil fragments. This interval of carbonates displayed no visible fluorescence, staining or cut and exhibited a poor intercrystalline fabric porosity.

The Gothic Shale was penetrated at a measured depth of 5593', true vertical depth 5590' and was approximately 15' thick in this curve section. The top of the Gothic was picked by a decrease in penetration and a significant increase in the amount of black carbonaceous shale in the cuttings. This shale is black to dark gray shale, carbonaceous, occasionally grainy to silty, soft to slightly firm, sooty, slightly fissile, subblocky to subplaty, calcareous to slightly dolomitic and slightly micaceous. Very thin partings of dense, very slightly argillaceous, occasionally dolomitic, cream to tan limestones and clean to very argillaceous, limey, brown to medium gray brown dolomites were noted in this shale member. This formation has no economic potential.

The top of the Desert Creek Member of the Upper Paradox Formation was picked at a measured depth of 5620', 5604' true vertical depth, based on gamma-neutron logs, an increase in the amount of dense limestone packstone in the samples and a decrease in the amount of Gothic Shale. This transition zone was predominately a dense limestone packstone facies, occasionally very argillaceous, very slightly fossiliferous in part, had thinly interbedded argillaceous limey dolomites and very thin black carbonaceous shale partings. The limestones of the transition zone were light brown, cream, white, light gray and occasionally medium to dark brown. This packstone facies was cryptocrystalline to microcrystalline, moderately dense, chalky to anhydritic and very slightly dolomitic in part. Thinly interbedded carbonaceous shales and brown sucrosic dolomites, anhydrite crystals and off-white chalky matter were associated with this interval. The transition zone had poor to a slight trace of intercrystalline porosity, but no visible shows. Near the base of the transition zone the dense limestones became increasingly oolitic and graded in to the oolicastic to oomoldic limestones of the Desert Creek Upper 1-A porosity bench.

The top of the Desert Creek Upper 1-A porosity zone was encountered at a measured depth of 5621', true vertical depth of 5614'. The top was picked based on the carbonates becoming predominately a good oolicastic to oomoldic limestone grainstone with a significant increase in the penetration rate. This oolicastic to oomoldic limestone grainstones marked the upper 1-A porosity bench. This limestone grainstone facies was tan, light brown, brown and occasionally cream, microcrystalline to very fine crystalline, with a trace of granular to slightly microsucrosic texture, very slightly dolomitic, slightly chalky and anhydritic, and very slightly dolomitic. Associated with this grainstone facies were anhydrite crystals, oolites, rare pellets, very rare fossil fragments, some carbonacous matter, very rare algal development and trace calcite fracture fill. The grainstone facies had a moderately good oomoldic to oolicastic fabric porosity with intercrystalline fabric porosity in part. The sample shows were moderately fair to good; the cut was a fast blooming to fair slow streaming milky ring cut and the fluorescence was an even moderately bright to bright yellow-gold hue.

The Desert Creek 1-A porosity bench and the 1-B porosity bench transition was encountered at a measured depth of 5658', true vertical depth 5637' and was approximately six feet thick. The top of this transition zone was represented by a decrease in penetration rate. The grainstone facies defined above was the predominate carbonate in the samples. There was only a minor increase in dense slightly platy to platy occasionally oolitic packstone. It is suggested that these carbonates represented the six feet of slow drilling. The packstone facies had a very minor matrix oil stain, a dull fluorescence and a poor slow diffused cut.

The top of the targeted Desert Creek 1-B porosity bench was penetrated at a measured depth 5677', true vertical depth 5643' at a horizontal displacement of 45'. This carbonate cycle in this southeast curve section was a grainstone facies and was very similar to the Desert Creek 1-A porosity bench. This facies was brown, light brown, tan to occasionally cream, mottled, microcrystalline to very fine crystalline with some scattered cryptocrystalline, moderately dense in part, grainy to microsurosic, slightly dolomitic, very slightly chalky and anhydritic. Associated with this grainstone facies was thinly interbedded dense slightly oolitic platy packstones, abundant oolites and their casts, fossil fragments, rare anhydrite crystals, rare black carbonacous shale partings and was infrequently intracalstic. Shows overall were poor to moderately good light brown to brown with the analogous black dead oil stain filling casts and coating calcite fracture fill. A moderately fair scattered to even dull to moderately bright fluorescence and moderately fair fast to fair slow streaming diffused cut was observed for this portion of the Desert Creek 1-B porosity bench.

The curve portion of the lateral was completed at a measured depth of 5707', true vertical depth 5547.8', with a horizontal displacement of 80', bearing 143 degrees, and an inclination of 88.6 degrees, on November 16, 1998, in the Desert Creek 1-B porosity bench of the Upper Paradox Formation. At this point a trip was made to lay down the curve assembly and pickup the lateral assembly.

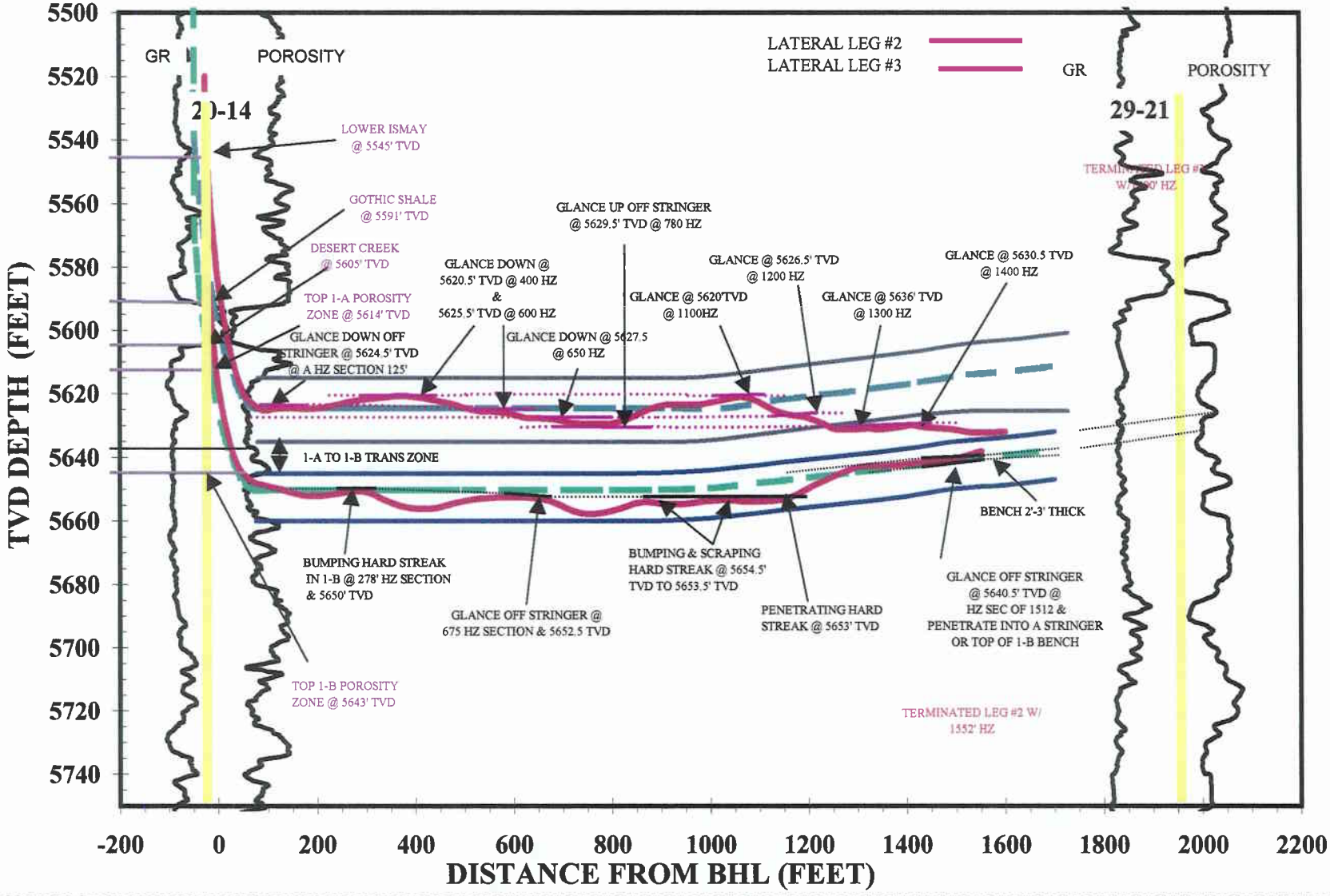
Drilling of the southeast lateral resumed on November 16, 1998 in the Upper Desert Creek 1-B porosity bench of the Upper Paradox Formation. The lateral was slid for the first 67' in order to control the vertical depth, horizontal plane direction and to put the lateral assembly out far enough to begin rotating. The lateral was begun in the good oolicastic to oomoldic limestone grainstone facies and was the predominate facies for the lateral. This grainstone facies was light gray brown, light brown, tan, cream, occasionally off-white to brown, microcrystalline to very fine crystalline, infrequently cryptocrystalline, slightly mottled to mottled, moderately dense to occasionally dense in part, grainy to microsucrosic, very slightly dolomitic, slightly chalky and anhydritic, silty, rarely earthy and argillaceous. A thinly interbedded packstone facies was noted throughout the lateral and was represented in the samples when the bit drilled a stringer, a set of stringers or the top. The only significant increase in the packstone facies occurred between the true vertical depths of 5644' to 5653' at the horizontal displacements of 880' through 1256'. This facies light brown to cream, cryptocrystalline to microcrystalline, dense to tight, very slightly dolomitic, slightly platy to platy, slightly chalky/anhydritic to sometimes chalky and anhydritic in part. Associated with this carbonate cycle that represents the 1-B porosity bench were rare to trace carbonacous matter, rare to trace light brown to buff chert fragments, abundant oolites and occasionally some pellets, and rare fossil fragments. Analogous with the bench as well were off-white chalky matter, rare to trace anhydrite crystals, scattered chalky, calcite and anhydritic casts, calcite fracture fill and up hole contamination. The Desert Creek 1-B porosity bench had overall a moderately fair to good light brown to brown oil stain with only minor decreases in shows between the interval with the increase in packstones as noted above. These carbonates had a dull to bright yellow-gold fluorescence and a fast to slow blooming milky ring cut was predominate throughout the drilling.

The Desert Creek 1-B porosity bench southeast lateral leg #2 began in approximately a twenty-foot pay-zone that dipped slightly up towards the targeted Ratherford Unit #29-21 well bore. The bit maintained horizontal for 278' before encountering stringer #1 at a true vertical depth 5650'. This stringer forced the bit down to a true vertical depth of 5655' before it could be brought back to horizontal. Once brought back to horizontal the bit began to build across the 1-B porosity bench before glancing off possibly stringer #1 at a true vertical depth 5652.5 at a horizontal displacement of 575'. This glance turned the bit down to angle of 86 degrees before it could be brought back to horizontal again. The bit then penetrated slightly up and across the bench for 325' of horizontal displacement and appeared to be caught up cyclic deposits based on samples, penetration rate, and bumps/scraps that forced the bit down. Glances occurred at the true vertical depths of 5655' and 5653.5' at a horizontal displacement of approximately 1000' and probably caused by stringer #1. At a true vertical depth of 5653' at a horizontal displacement of 1200' the bit climbed to a 95 degree angle with out glancing or penetrating stringer #1. It is suggested that the stringer pinched out and the bench dipped up dramatically. There was also an increase in penetration rate, a decrease in packstones and an increase in grainstone cuttings. The bit was then brought back under control and stayed fairly flat for the remainder of the lateral.

From the beginning of the 20-14 southeast lateral leg #2 to its termination on November 18, 1998, at a measured depth of 7190', true vertical depth 5638' with a horizontal displacement of 1552', the Desert Creek 1-B porosity bench was a consistent homogenous oomoldic to oolicastic granstone facies. Some interbedded and occasionally prominent packstone lenses were penetrated as well, but will have little impact on the horizontal after production is resumed. Oil and gas shows were moderately good to good and were consistent with what is to expected when drilling the reduced to good oomoldic to oolicastic fabric porosity. This well will help stimulate, move and contribute to the Ratherford Unit once it is returned to the water flood plan and has been acidized.

*The black residual staining has been called by Dr. Dave Eby & others as "bitchimum" and is also known as "dead oil" ("dd o stn" on mud logs). This staining is associated with the movement of oil over long periods of time and is a good indicator of producable hydrocarbons when associated with productive porosities, but can also be found in porosities that have been filled by anhydrites and other material at later dates.

MOBIL, Ratherford #20-14, Southeast Lateral



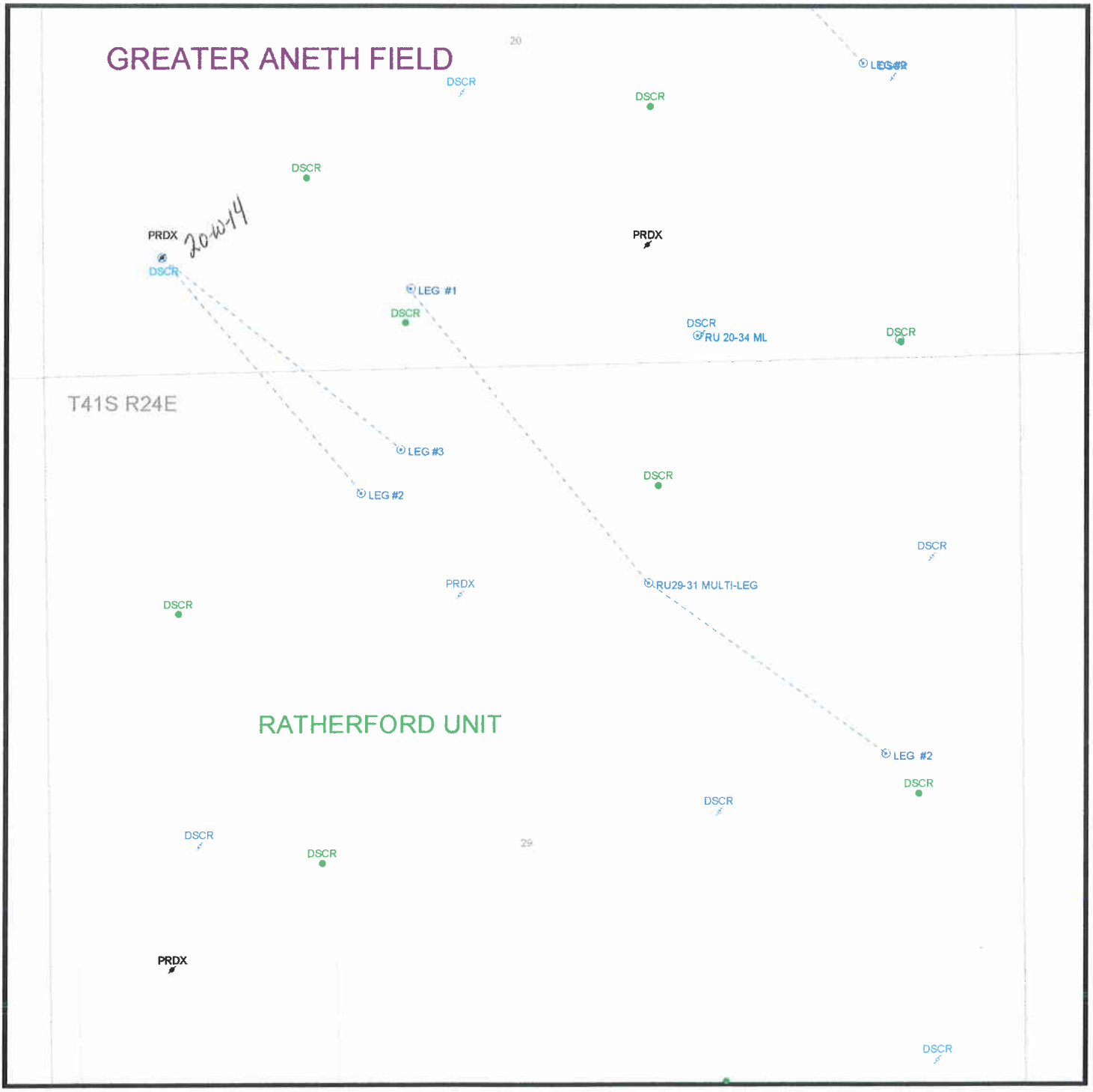
DIVISION OF OIL, GAS & MINING

OPERATOR: MOBIL EXPL & PROD INC (N7370)

FIELD: GREATER ANETH (365)

SEC. 20 & 29, TWP 41S, RNG 24E

COUNTY: SAN JUAN UNIT: RATHERFORD



DATE PREPARED:
2-NOV-1998

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 10/16/98

API NO. ASSIGNED: 43-037-15747

WELL NAME: RATHERFORD 20-W-14 MULTI-LEG
OPERATOR: MOBIL EXPL & PROD CO (N7370)
CONTACT: _____

PROPOSED LOCATION:
SWSW 20 - T41S - R24E
SURFACE: 0660-FSL-0660-FWL
BOTTOM: 0442-FNL-1965-FWL
SAN JUAN COUNTY
GREATER ANETH FIELD (365)

LEASE TYPE: IND
LEASE NUMBER: 14-20-603-353
SURFACE OWNER: _____

PROPOSED FORMATION:

INSPECT LOCATION BY: / /		
TECH REVIEW	Initials	Date
Engineering		
Geology		
Surface		

RECEIVED AND/OR REVIEWED:

✓ Plat
✓ Bond: Federal[] State[] Fee[]
(No. INDIAN BOND 103601026)
N Potash (Y/N)
N Oil Shale (Y/N) *190-5(B)
✓ Water Permit
(No. NAVAJO ALLOTMENT)
N RDCC Review (Y/N)
(Date: _____)

N/A Fee Surf Agreement (Y/N)

LOCATION AND SITING:

✓ R649-2-3. Unit RATHERFORD UNIT

___ R649-3-2. General

___ R649-3-3. Exception

___ Drilling Unit
Board Cause No: _____
Date: _____

COMMENTS: _____

STIPULATIONS: _____

Form 3160-4
(July 1992)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE (See other instructions on reverse side)

FORM APPROVED
OMB NO. 1004-0137
Expires: February 28, 1995

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

5. LEASE DESIGNATION AND SERIAL NO.: 14-20-603-353

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: NAVAJO TRIBAL

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ DRY ☐ Other X INJECTOR

b. TYPE OF COMPLETION: NEW WELL ☐ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other X SIDETRACK

7. UNIT AGREEMENT NAME: RATHERFORD UNIT

2. NAME OF OPERATOR: MOBIL PRODUCING TX & NM INC.*
*MOBIL EXPLORATION & PRODUCING US INC. AS AGENT FOR MPTM

8. FARM OR LEASE NAME, WELL NO.: RATHERFORD 20-W-14

3. ADDRESS AND TELEPHONE NO.: P.O. Box 633, Midland TX 79702 (915) 688-2585

9. API WELL NO.: 43-037-15747

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface: 660' FSL & 660' FWL, LAT #1 BHL: 618' FNL & 442' FWL
At top prod. interval reported below
At total depth

10. FIELD AND POOL, OR WILDCAT: GREATER ANETH

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: SEC. 20, T41S, R24E

14. PERMIT NO. | DATE ISSUED

12. COUNTY OR PARISH: SAN JUAN | 13. STATE: UT

15. DATE SPUDDED	16. DATE T.D. REACHED	17. DATE COMPL. (*Ready to prod.*)	18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*	19. ELEV. CASINGHEAD
11-10-98	11-23-98	01-07-99	4854'	

20. TOTAL DEPTH, MD & TVD	21. PLUG, BACK T.D., MD & TVD	22. IF MULTIPLE COMPL., HOW MANY*	23. INTERVALS DRILLED BY	ROTARY TOOLS	CABLE TOOLS
*#24	*#24		→	X	

24. PRODUCING INTERVAL(S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)*
LAT #2; (5544-7190' TMD)(5544-5638' TVD) LAT #3; (5513-7209" TMD)(5513-5632' TVD)

25. WAS DIRECTIONAL SURVEY MADE: YES

26. TYPE ELECTRIC AND OTHER LOGS RUN: NO

27. WAS WELL CORED: NO

28. CASING RECORD (*Report all strings set in well*)

CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
13 3/8"	27#	170'	17 1/4"	175 SXS SURFACE	
8 5/8"	24#	1564'	11"	800 CU FT SURFACE	
5 1/2"	15.5 & 14#	5825'	7 7/8"	250 SXS	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 7/8"	5415'	5415'

RECEIVED
FEB 11 1999
DIV. OF OIL, GAS & MINING

31. PERFORATION RECORD (*Interval, size and number*)

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
5698-7192'	ACIDIZE LAT #3 W/21000 GALS 15% HCL ACID
5693-6400'	ACIDIZE LAT #2 W/9870 GALS 15% HCL ACID

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (*Flowing, gas lift, pumping - size and type of pump*)	WELL STATUS (*Producing or shut-in*)
1-25-99		PRODUCING

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD →	OIL - BBL.	GAS - MCF.	WATER - BBL.	GAS - OIL RATIO
						270	

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL - BBL.	GAS - MCF.	WATER - BBL.	OIL GRAVITY - API (CORR.)
2850						

34. DISPOSITION OF GAS (*Sold, used for fuel, vented, etc.*)

TEST WITNESSED BY

35. LIST OF ATTACHMENTS
DIRECTIONAL SURVEY

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Sue Moseley for TITLE SHIRLEY HOUCHINS/ENV & REG TECH DATE 02-05-99

*(See Instructions and Spaces for Additional Data on Reverse Side)

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdicton.

WH 3-22-99 pte

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT - " for such proposals

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No.: 14-20-603-353
6. If Indian, Allottee or Tribe Name: NAVAJO TRIBAL
7. If Unit or CA, Agreement Designation: RATHERFORD UNIT
8. Well Name and No.: RATHERFORD 20-W-14
9. API Well No.: 43-037-15747
10. Field and Pool, or exploratory Area: GREATER ANETH
11. County or Parish, State: SAN JUAN UT

1. Type of Well: [ ] Oil Well [ ] Gas Well [X] Other
2. Name of Operator: MOBIL PRODUCING TX & NM INC.*
*MOBIL EXPLORATION & PRODUCING US INC. AS AGENT FOR MPTM
3. Address and Telephone No.: P.O. Box 633, Midland TX 79702 (915) 688-2585
4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
SEC. 20, T41S, R24E
660' FSL & 660' FWL
LATERAL #1 BHL: 618' FNL & 442' FWL

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
[ ] Notice of Intent	[ ] Abandonment	[ ] Change of Plans
[X] Subsequent Report	[ ] Recompletion	[ ] New Construction
[ ] Final Abandonment Notice	[ ] Plugging Back	[ ] Non-Routine Fracturing
	[ ] Casing Repair	[ ] Water Shut-Off
	[ ] Altering Casing	[ ] Conversion to Injection
	[X] Other INJECTOR/SIDETRACK	[ ] Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

BHL:

LATERAL #2; 1172' SOUTH & 1019' EAST FROM SURFACE SPOT (ZONE 1B).
LATERAL #3; 971' SOUTH & 1274' EAST FROM SURFACE SPOT (ZONE 1A).

SEE ATTACHED PROCEDURE HORIZONTAL RECOMPLETION.

RECEIVED
FEB 11 1999
DIV. OF OIL, GAS & MINING

14. I hereby certify that the foregoing is true and correct
Signed Sue Moseley for Title SHIRLEY HOUCHINS/ENV & REG TECH Date 02-05-99

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*** See Instruction on Reverse Side**

DRILLED FOOTAGE CALCULATION FOR DIRECTIONAL AND HORIZONTAL WELLS

Unit, Well Name:	Ratherford Unit, Well 20-W-14
API Well #:	43-037-15747
Well Completion:	Horizontal, Injector, 2 Laterals

First leg description:	Lateral #2
KOP MD:	5544.00
EOL MD:	7191.00
Footage drilled:	1647.00
Max. TVD Recorded	5657.66

Second leg description:	Lateral #3
KOP MD:	5513.00
EOL MD:	7209.00
Footage drilled:	1696.00
Max. TVD Recorded	5632.07

Total Footage Drilled (MD):	***3343.00***
Deepest point (TVD):	***5657.66***

ATTACHMENT - FORM 3160-5
RATHERFORD UNIT - WELL #20-W-14
14-20-603-353
NAVAJO TRIBAL
SAN JUAN, UTAH

11-10-98	MESSAGE W/ MARK KELLY OF B.L.M. @ 09:45 AM ON 11-09-98 OF INTENT TO PREP WELL FOR DRILLING RIG. ATTEMPTED TO NOTIFY NAVAJO E.P.A. OF INTENT TO DIG PIT AND LINE AT 09:45 AM AND 10:30 AM ON 11-09-98. NO ANSWER OFFICE OR MOBILE. RU DDPU MONTEZUMA 36. ND WELLHEAD, NU BOPS. SIWSDFN.
11-11-98	SITP=0 PSI, ATTEMPT TO UNSET. PKR. RECESSED INTO RUNNING POSITION. POOH CMT. LINED TBG. LD PKR. MIRU WL. RIH W/ METT LOG, LOG F/ 5600'-SURFACE. MU RBP ON WL AND RIH. SET @ 5500'. RDMO WL. TEST CSG. TO 500 PSI FOR 30 MIN. ON CHART-GOOD TEST. SIWSDFN.
11-12-98	ND BOPS. NU WH FLANGE. RDMO MONTEZUMA 36.
11-12-98	START MOVING IN ROTARY RIG #25. (NOTIFIED JIM THOMPSON W/ B.L.M.)
11-13-98	FINISH MOVING IN AND RU ROTARY RIG. NU BOP STACK, CHOKE MANIFOLD, VALVES, TO 2000 PSI HIGH AND 250 PSI LOW. RIH W/ RET. HD. DC'S AND DP TO TOP OF RBP AT 5500'. RELEASE RBP AND LET EQUALIZE. START OUT OF HOLE.
11-14-98	POOH W/ RBP AND LAY DOWN SAME. RU SCHLUMBERGER WL SET TIW PKR. AT 5559' RD. TIH W/ ANCHOR LATCH ASSY. RU GYRODATA. GYRO FOUND KEYWAY AT 37 GTF. RD WL. ANCHOR LATCH ASSY. POOH W/ ANCHOR AND LD.
11-15-98	TIH W/ ANCHOR LATCH, WHIPSTOCK, STARTING MILL, LATCH INTO TIW PKR. AT 5559'. TOP OF WS AT 5544'. SHEAR OFF FROM WHIPSTOCK. MILL WINDOW W/ STARTING MILL FROM 5554-56'. TIH W/ CSG. AND WATERMELON MILLS. MILL WINDOW FROM 5543-50' PLUS I FT. FORMATION TO 5551'.
11-16-98	FINISH OUT OF HOLE LD MILLS. PU CURVE BUILDING ASSY. RU GYRO DATA. TIME DRILL FROM 5551-54'. TD OF CURVE AT 5707' MD. 5647.65' TVD. POOH LD TBG. LD CURVE ASSY.
11-17-98	PU RIH W/ BIT. PU SWIVEL. SLIDE/ROTATE DRILL AND SURVEYS FROM 5707-6500'.
11-18-98	SLIDE, ROTARY DRLG. AND SURVEY FM 5707-7190' TD LATERAL 2A1.
11-19-98	TOH LD LATERAL DRLG. ASSY. TIH W/ SUPERHOOK AND FISH WHIPSTOCK POH LD SAME. FINAL RPT. FOR LATERAL 2A1.
11-19-98	PICK UP AND ORIENT WHIPSTOCK, 37 GTF, 130 AZ. TIH W/ WHIPSTOCK, LATCH INTO TIW PKR @ 5559', SHEAR OFF WHIPSTOCK. MILL W/ STARTER MILL FM 5513-5515'. TOH W/ STARTER MILL. TIH W/ CSG. WATERMELON MILL. MILL WINDOW FM 5513-5519'.
11-20-98	FIN MILL WINDOW AND CUT 1' FORM (5520')
11-20-98	FIN PU CURVE DRLG. ASSY. TIH W/ CURVE DRLG. ASSY. TIME DRLG. FM 5520-5692', TD CURVE 5625' TVD.
11-21-98	TOH LD CURVE DRLG. ASSY. PICK UP RERUN BIT. SLIDE, ROTARY DRLG. AND SURVEY FM 5692-6608'.
11-22-98	SLIDE , ROTARY DRLG. AND SURVEY FM 6608-7209' TD LATERAL 3A1
11-22-99	(5632' TVD). TOH LD LATERAL DRLG. ASSY. TIH W/ PH6 TAILPIPE TBG. 5 1/2" GUIB UNI 6 PKR, SET @ 5390' (TOP WINDOW 5513', END OF CURVE 5692'), REL ON OFF TOOL.
11-23-98	DISPLACE 5 1/2" CSG. W/ FRESH WTR, AND PRESS TEST 500# OK. POH LD DP/DCS. ND BOPS, JET AND CLEAN PITS, REL MONTEZUMA RIG 25 12:00 AM. FINAL REPORT PENDING COMPLETION.

ATTACHMENT - FORM 3160-5
RATHERFORD UNIT - WELL #20-14
14-20-603-353
NAVAJO TRIBAL
SAN JUAN, UTAH
PAGE 2

12-17-98	MIRU PU AND SUPPORT EQUIP.
12-18-98	RELEASE ON/OFF TOOL. CIRC. HOLE. LATCH ON AND PRESSURE TEST CSG. TO 500 PSI. OK. RU TEFTELLER WL. 1500 PSI ON TBG. RD WL. SDFN.
12-19-98	MIRU DOWELL COIL TBG. UNIT. TO 7209' ACIDIZE LATERAL 3A1 FROM 5700-7209' W/ 500 BBLS. 15% HCL. POH W/ COIL TBG. AND RD DS UNIT. SDFN & SUNDAY.
12-20-98	SITP 1550 PSI. SWI.
12-21-98	POOH W/ GUIBERSON PKR. PIH W/ SUPERHOOK. HOOK WHIPSTOCK, FREE. LD BT SUB, SUPERHOOK, AND WHIPSTOCK. REORIENT WHIPSTOCK FOR THE 2A1 LATERAL. TBG LEFT IN THE HOLE AT A TOTAL LENGTH OF 5316.14'. WHIPSTOCK EQUIP. RE-ENTRY GUIDE 5559.4'.
12-22-98	PRESSUE ON TIW. PUMP 14.2#/GAL MUD KILL TBG. POOH W/ TBG. AND WHIPSTOCK RUNNING TOOL. PU AND RIH W/ TAIL PIPE, GUIBERSON UNI VI PKR. END OF THE TBG. AT 5691.25' AND AT 5389.10'. PRESSURE TEST PKR. TO 300 PSI W/ TEST GOOD. SD.
12-23-98	MIRU DS COILED TBG. UNIT. RIH COILED TBG. ACIDIZE LATERAL 2A1 FROM 7192' TO 5698' W/ 21000 GAL % ACID. SWISDFN.
12-24-98	FLOWED WELL FROM 1400 TO 300 PSI, UNSEAT GUIBERSON PKR., POOH W/ PKR. AND TAIL PIPE, PU AND RIH W/ REORIENTATION GUIDE, FISH FOR WHIPSTOCK, WHIPSTOCK WOULD NOT FISH, SI UNTIL 12-27-98.
12-28-98	SITP AT 07:30 WS 600 PSI. SICP AT 07:30 WAS 400 PSI. WD. POH W/ TBG. BOTTOM END OF RETV. TOOL MISSING. RIH W/ SPEAR. POH DID NOT RECV. FISH. RIH W/ KILL STRING. SIFN.
12-29-98	SIP AT 07:30 WAS 100 PSI. RU AND KW. MAKE UP SPEAR RIH TO 5550'. COULD NOT LATCH ONTO FISH. POH FROM 7190' TO 5430'. SIFN.
12-30-98	SIP AT 07:30 WAS 100 PSI. RU AND KW. RIH TO 5447.40' LATCH ONTO RETV. WHIPSTOCK. RELEASE, POH LD WHIPSTOCK AND FISH. RIH W/ ANCHOR LATCH TO 5559'. SIFN.
12-31-98	MIRU DOWELL COILED TBG. UNIT. SIP AT 08:30 WAS 0 PSI ON TBG. 60 PSI ON CSG. RIH W/ COILED TBG. TO 6400'. DOWELL ACIDIZE DESSERT CREEK FORMATION 5693-6400'. W/ 9870 GAL 15% HCL ACID. RD COILED TBG. MOVE OFF. SIFN & HOLIDAY.
01-02-99	SITP AT 07:30 WAS 1100 PSI. SICP AT 07:30 WAS 200 PSI. BLEED TBG. PRESSURE TO 500 PSI. RU AND KW. RIH W/ PRODUCTION PKR. TO 5415'. SET RELEASE ON/OFF TOOL. SIFN & SUNDAY.
01-04-99	ATTEMPT TO GET OFF ON/OFF NO SUCCESS REL. PKR. PULL UP SWISDFN.
01-05-99	SIP 0#, REL PKR POOH, CHANGED RIH SET PKR. @ 5415', OFF ON/OFF TOOL, CIRC. MUD.
01-06-99	SIP 0#, RU TOOL TO PU CMT LINE TBG, TALLY TBG., SPACED OUT ND BOP, INSTALLED TREE LATCHED ON TO PKR. FLANGED UP FOR NITE SWISDFN.
01-07-99	WO NAVAJO EPA FOR MIT TEST, TEST 5.5" CSG. TO 1150# 30 MIN INC. TO 1170# PASSED TEST. WITNESSED BY EPA INSPECTOR PRESTENE GARNEDEZ SHE TOOK CHART.

Mobil Expl. & Prod. U.S., Inc.

San Juan County
Utah
Ratherford Unit
RU 20-14 - MWD Survey Leg #2

SURVEY REPORT

8 January, 1999

sperry-sun
DRILLING SERVICES
A DIVISION OF DRESSER INDUSTRIES, INC.

Survey Ref: svy3478

Sperry-Sun Drilling Services

Survey Report for RU 20-14

Mobil Expl. & Prod. U.S., Inc.
San Juan County

Utah
Ratherford Unit

Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
Gyro							
0.00	0.000	0.000	0.00	0.00 N	0.00 E	0.00	
100.00	0.130	12.880	100.00	0.11 N	0.03 E	-0.07	0.130
200.00	0.160	107.340	200.00	0.18 N	0.18 E	-0.02	0.214
300.00	0.200	80.330	300.00	0.17 N	0.49 E	0.19	0.093
400.00	0.260	100.600	400.00	0.15 N	0.88 E	0.45	0.100
500.00	0.260	70.100	500.00	0.19 N	1.32 E	0.70	0.137
600.00	0.210	115.490	600.00	0.19 N	1.70 E	0.95	0.187
700.00	0.230	78.120	700.00	0.15 N	2.06 E	1.21	0.142
800.00	0.100	154.040	800.00	0.11 N	2.30 E	1.39	0.227
900.00	0.120	173.580	900.00	0.07 S	2.35 E	1.56	0.042
1000.00	0.130	177.780	1000.00	0.29 S	2.36 E	1.74	0.014
1100.00	0.090	182.390	1100.00	0.48 S	2.36 E	1.88	0.041
1200.00	0.070	238.840	1199.99	0.59 S	2.31 E	1.93	0.078
1300.00	0.150	1.400	1299.99	0.49 S	2.26 E	1.83	0.197
1400.00	0.320	343.330	1399.99	0.09 S	2.18 E	1.47	0.183
1500.00	0.640	322.810	1499.99	0.62 N	1.76 E	0.66	0.358
1600.00	0.950	326.040	1599.98	1.75 N	0.96 E	-0.73	0.313
1700.00	0.790	319.470	1699.97	2.97 N	0.05 E	-2.24	0.188
1800.00	0.810	320.580	1799.96	4.04 N	0.84 W	-3.64	0.025
1900.00	0.690	317.030	1899.95	5.02 N	1.70 W	-4.94	0.129
2000.00	0.720	325.820	1999.94	5.98 N	2.47 W	-6.17	0.112
2100.00	0.760	314.080	2099.93	6.96 N	3.30 W	-7.45	0.157
2200.00	0.420	302.770	2199.93	7.62 N	4.08 W	-8.46	0.358
2300.00	0.710	300.510	2299.92	8.14 N	4.92 W	-9.40	0.291
2400.00	0.530	325.340	2399.92	8.83 N	5.72 W	-10.44	0.319
2500.00	0.440	321.630	2499.92	9.51 N	6.22 W	-11.29	0.095
2600.00	0.830	326.430	2599.91	10.42 N	6.86 W	-12.39	0.393
2700.00	0.920	332.290	2699.90	11.73 N	7.63 W	-13.89	0.127
2800.00	1.300	345.350	2799.88	13.54 N	8.29 W	-15.70	0.454
2900.00	1.420	348.880	2899.85	15.85 N	8.82 W	-17.81	0.146
3000.00	1.220	350.690	2999.82	18.12 N	9.23 W	-19.81	0.204
3100.00	0.900	350.060	3099.81	19.94 N	9.54 W	-21.41	0.320
3200.00	0.870	359.230	3199.79	21.48 N	9.69 W	-22.68	0.145
3300.00	0.620	348.870	3299.79	22.77 N	9.80 W	-23.74	0.283
3400.00	0.550	350.460	3399.78	23.77 N	9.98 W	-24.63	0.072
3500.00	0.550	354.880	3499.78	24.72 N	10.11 W	-25.43	0.042
3600.00	0.410	324.390	3599.77	25.49 N	10.36 W	-26.19	0.286
3700.00	0.190	20.330	3699.77	25.94 N	10.51 W	-26.62	0.342
3800.00	0.120	65.910	3799.77	26.14 N	10.35 W	-26.68	0.136
3900.00	0.070	302.320	3899.77	26.21 N	10.31 W	-26.71	0.169

Continued...

Sperry-Sun Drilling Services

Survey Report for RU 20-14

Mobil Expl. & Prod. U.S., Inc.
San Juan County

Utah
Ratherford Unit

Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
4000.00	0.190	51.540	3999.77	26.35 N	10.23 W	-26.76	0.223
4100.00	0.180	13.360	4099.77	26.60 N	10.07 W	-26.85	0.121
4200.00	0.170	16.060	4199.77	26.90 N	9.99 W	-27.03	0.013
4300.00	0.120	179.070	4299.77	26.94 N	9.95 W	-27.03	0.287
4400.00	0.110	287.990	4399.77	26.86 N	10.04 W	-27.03	0.187
4500.00	0.120	265.310	4499.77	26.88 N	10.23 W	-27.17	0.046
4600.00	0.100	257.660	4599.77	26.86 N	10.42 W	-27.27	0.025
4700.00	0.070	15.190	4699.77	26.90 N	10.49 W	-27.35	0.146
4800.00	0.150	150.950	4799.77	26.84 N	10.41 W	-27.25	0.206
4900.00	0.160	206.760	4899.77	26.60 N	10.41 W	-27.07	0.145
5000.00	0.140	229.510	4999.77	26.40 N	10.57 W	-27.01	0.062
5100.00	0.200	336.990	5099.77	26.48 N	10.73 W	-27.18	0.276
5200.00	0.060	248.560	5199.77	26.62 N	10.84 W	-27.36	0.207
5300.00	0.240	328.980	5299.77	26.78 N	11.00 W	-27.59	0.238
5400.00	0.320	339.690	5399.77	27.22 N	11.21 W	-28.06	0.095
5500.00	0.350	313.920	5499.77	27.70 N	11.52 W	-28.62	0.152
MWD Survey Leg #2							
5544.00	0.370	335.920	5543.76	27.92 N	11.68 W	-28.89	0.315
5551.00	4.200	140.000	5550.76	27.74 N	11.52 W	-28.66	65.099
5561.00	10.200	156.080	5560.68	26.65 N	10.93 W	-27.44	62.720
5571.00	16.000	160.330	5570.41	24.54 N	10.10 W	-25.29	58.756
5581.00	21.900	162.300	5579.87	21.47 N	9.07 W	-22.27	59.338
5591.00	27.200	167.000	5588.96	17.46 N	7.99 W	-18.51	56.444
5601.00	30.700	164.000	5597.71	12.78 N	6.77 W	-14.14	37.883
5611.00	35.400	156.900	5606.09	7.65 N	4.93 W	-9.03	60.829
5621.00	41.100	154.600	5613.94	2.01 N	2.38 W	-3.07	58.743
5631.00	47.700	151.600	5621.06	4.21 S	0.79 E	3.74	69.242
5641.00	53.000	152.100	5627.46	11.00 S	4.42 E	11.27	53.139
5651.00	58.600	152.000	5633.06	18.30 S	8.30 E	19.36	56.006
5661.00	64.800	149.900	5637.82	26.00 S	12.57 E	28.00	64.693
5671.00	70.900	148.200	5641.59	33.93 S	17.34 E	37.14	62.997
5681.00	76.600	146.700	5644.39	42.02 S	22.50 E	46.65	58.789
5707.00	88.500	143.400	5647.75	63.11 S	37.25 E	72.29	47.462
5754.00	87.200	137.700	5649.52	99.36 S	67.08 E	119.23	12.430
5786.00	87.400	136.200	5651.02	122.71 S	88.90 E	151.15	4.724
5818.00	89.300	137.100	5651.95	145.97 S	110.86 E	183.08	6.569
5849.00	90.900	135.700	5651.89	168.42 S	132.23 E	214.02	6.858
5881.00	91.800	138.500	5651.14	191.85 S	154.01 E	245.96	9.189
5913.00	91.100	139.600	5650.33	216.01 S	174.97 E	277.95	4.074
5945.00	86.000	137.600	5651.14	240.00 S	196.12 E	309.91	17.118
5976.00	85.700	137.500	5653.36	262.82 S	216.99 E	340.81	1.020
6008.00	87.800	136.900	5655.19	286.26 S	238.69 E	372.71	6.824

Continued...

Sperry-Sun Drilling Services

Survey Report for RU 20-14

Mobil Expl. & Prod. U.S., Inc.
San Juan County

Utah
Ratherford Unit

Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
6040.00	89.200	136.400	5656.03	309.52 S	260.65 E	404.65	4.645
6071.00	91.600	139.000	5655.82	332.44 S	281.51 E	435.62	11.413
6103.00	92.400	141.000	5654.70	356.94 S	302.07 E	467.59	6.728
6135.00	91.400	140.800	5653.64	381.76 S	322.24 E	499.57	3.187
6167.00	91.300	142.700	5652.88	406.88 S	342.04 E	531.55	5.944
6198.00	90.100	141.900	5652.51	431.40 S	361.00 E	562.52	4.652
6230.00	90.400	142.900	5652.37	456.76 S	380.52 E	594.49	3.263
6262.00	89.400	141.700	5652.42	482.08 S	400.09 E	626.46	4.881
6294.00	88.500	141.700	5653.01	507.18 S	419.92 E	658.44	2.812
6326.00	85.600	139.800	5654.65	531.93 S	440.14 E	690.39	10.830
6357.00	86.600	140.500	5656.76	555.67 S	459.95 E	721.32	3.935
6389.00	90.200	139.600	5657.66	580.19 S	480.49 E	753.30	11.596
6421.00	91.800	139.800	5657.10	604.59 S	501.18 E	785.30	5.039
6453.00	92.500	139.200	5655.90	628.91 S	521.95 E	817.27	2.880
6484.00	93.300	139.200	5654.33	652.34 S	542.18 E	848.23	2.581
6515.00	88.200	137.300	5653.92	675.46 S	562.81 E	879.20	17.555
6547.00	89.200	137.500	5654.65	699.01 S	584.47 E	911.16	3.187
6579.00	91.000	137.600	5654.59	722.62 S	606.06 E	943.13	5.634
6611.00	91.100	136.800	5654.01	746.09 S	627.80 E	975.09	2.519
6642.00	90.900	136.100	5653.47	768.56 S	649.16 E	1006.02	2.348
6674.00	89.600	136.400	5653.33	791.67 S	671.29 E	1037.95	4.169
6705.00	89.000	135.200	5653.71	813.90 S	692.90 E	1068.87	4.328
6736.00	90.800	134.700	5653.76	835.80 S	714.83 E	1099.74	6.026
6767.00	90.600	133.800	5653.38	857.43 S	737.04 E	1130.58	2.974
6798.00	93.000	134.500	5652.41	879.01 S	759.27 E	1161.41	8.064
6829.00	95.200	133.800	5650.19	900.54 S	781.45 E	1192.16	7.446
6860.00	93.700	135.200	5647.79	922.20 S	803.50 E	1222.93	6.609
6892.00	94.400	135.900	5645.53	944.99 S	825.85 E	1254.75	3.090
6924.00	92.700	139.600	5643.54	968.63 S	847.32 E	1286.66	12.704
6956.00	90.400	138.000	5642.68	992.69 S	868.39 E	1318.63	8.754
6986.00	89.800	138.000	5642.63	1014.99 S	888.46 E	1348.62	2.000
7018.00	91.100	140.600	5642.37	1039.24 S	909.32 E	1380.61	9.084
7050.00	91.000	140.500	5641.79	1063.95 S	929.65 E	1412.60	0.442
7082.00	90.500	139.400	5641.37	1088.44 S	950.24 E	1444.60	3.776
7112.00	90.400	139.000	5641.13	1111.15 S	969.84 E	1474.60	1.374
7144.00	93.600	142.000	5640.02	1135.82 S	990.18 E	1506.57	13.703
7157.00	92.500	141.200	5639.32	1146.00 S	998.25 E	1519.54	10.457
7190.00	92.500	141.200	5637.89	1171.69 S	1018.90 E	1552.50	0.000

Continued...

Sperry-Sun Drilling Services

Survey Report for RU 20-14

Mobil Expl. & Prod. U.S., Inc.
San Juan County

Utah
Ratherford Unit

All data is in feet unless otherwise stated. Directions and coordinates are relative to True North.
Vertical depths are relative to Well. Northings and Eastings are relative to Well.

The Dogleg Severity is in Degrees per 100ft.
Vertical Section is from Well and calculated along an Azimuth of 140.000° (True).

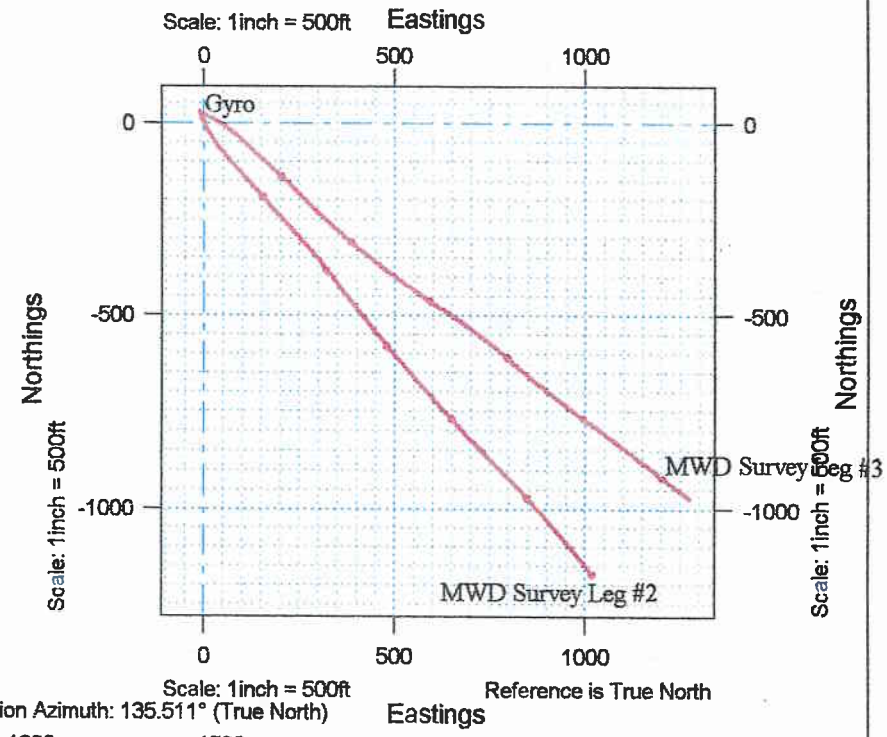
Based upon Minimum Curvature type calculations, at a Measured Depth of 7190.00ft.,
The Bottom Hole Displacement is 1552.75ft., in the Direction of 138.990° (True).

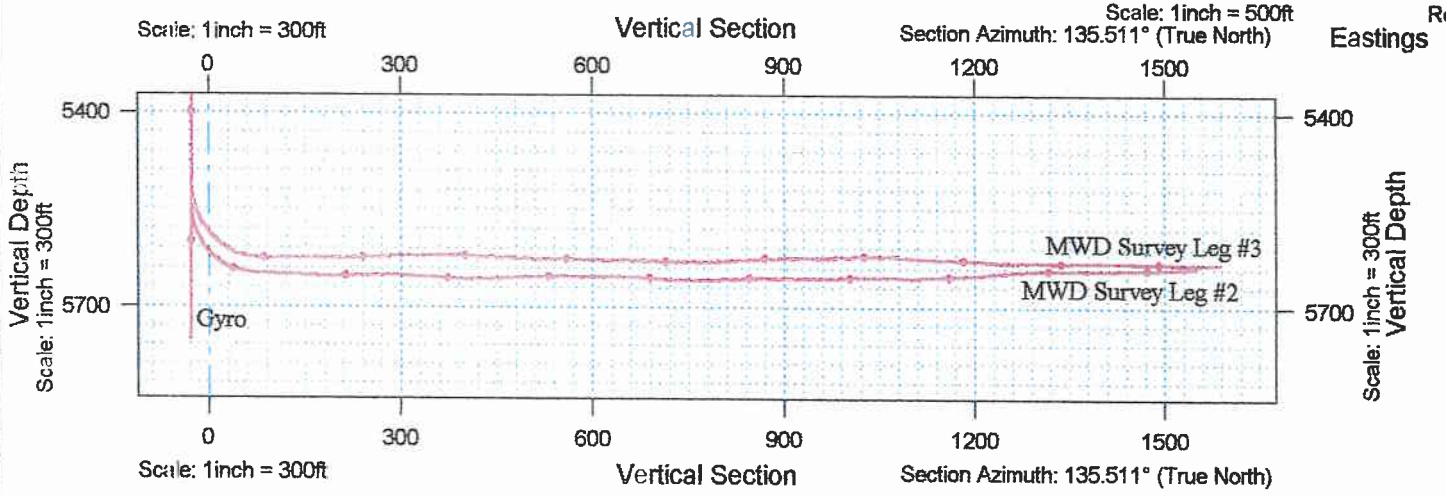
Sperry-Sun Drilling Services

Mobil Expl. & Prod. U.S., Inc.

DrillQuest

San Juan County
Utah
Ratherford Unit
RU 20-14





Prepared:	Checked:	Approved:

Mobil Expl. & Prod. U.S., Inc.

San Juan County
Utah
Ratherford Unit
RU 20-14 - MWD Survey Leg #3

SURVEY REPORT

8 January, 1999

sperry-sun
DRILLING SERVICES
A DIVISION OF DRESSER INDUSTRIES, INC.

Survey Ref: svy3480

Sperry-Sun Drilling Services

Survey Report for RU 20-14

Mobil Expl. & Prod. U.S., Inc.
San Juan County

Utah
Ratherford Unit

Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
Gyro							
0.00	0.000	0.000	0.00	0.00 N	0.00 E	0.00	
100.00	0.130	12.880	100.00	0.11 N	0.03 E	-0.05	0.130
200.00	0.160	107.340	200.00	0.18 N	0.18 E	0.03	0.214
300.00	0.200	80.330	300.00	0.17 N	0.49 E	0.27	0.093
400.00	0.260	100.600	400.00	0.15 N	0.88 E	0.58	0.100
500.00	0.260	70.100	500.00	0.19 N	1.32 E	0.89	0.137
600.00	0.210	115.490	600.00	0.19 N	1.70 E	1.18	0.187
700.00	0.230	78.120	700.00	0.15 N	2.06 E	1.48	0.142
800.00	0.100	154.040	800.00	0.11 N	2.30 E	1.69	0.227
900.00	0.120	173.580	900.00	0.07 S	2.35 E	1.84	0.042
1000.00	0.130	177.780	1000.00	0.29 S	2.36 E	1.99	0.014
1100.00	0.090	182.390	1100.00	0.48 S	2.36 E	2.12	0.041
1200.00	0.070	238.840	1199.99	0.59 S	2.31 E	2.15	0.078
1300.00	0.150	1.400	1299.99	0.49 S	2.26 E	2.04	0.197
1400.00	0.320	343.330	1399.99	0.09 S	2.18 E	1.73	0.183
1500.00	0.640	322.810	1499.99	0.62 N	1.76 E	0.95	0.358
1600.00	0.950	326.040	1599.98	1.75 N	0.96 E	-0.39	0.313
1700.00	0.790	319.470	1699.97	2.97 N	0.05 E	-1.87	0.188
1800.00	0.810	320.580	1799.96	4.04 N	0.84 W	-3.24	0.025
1900.00	0.690	317.030	1899.95	5.02 N	1.70 W	-4.53	0.129
2000.00	0.720	325.820	1999.94	5.98 N	2.47 W	-5.74	0.112
2100.00	0.760	314.080	2099.93	6.96 N	3.30 W	-7.00	0.157
2200.00	0.420	302.770	2199.93	7.62 N	4.08 W	-8.03	0.358
2300.00	0.710	300.510	2299.92	8.14 N	4.92 W	-9.00	0.291
2400.00	0.530	325.340	2399.92	8.83 N	5.72 W	-10.06	0.319
2500.00	0.440	321.630	2499.92	9.51 N	6.22 W	-10.88	0.095
2600.00	0.830	326.430	2599.91	10.42 N	6.86 W	-11.95	0.393
2700.00	0.920	332.290	2699.90	11.73 N	7.63 W	-13.39	0.127
2800.00	1.300	345.350	2799.88	13.54 N	8.29 W	-15.06	0.454
2900.00	1.420	348.880	2899.85	15.85 N	8.82 W	-16.95	0.146
3000.00	1.220	350.690	2999.82	18.12 N	9.23 W	-18.72	0.204
3100.00	0.900	350.060	3099.81	19.94 N	9.54 W	-20.13	0.320
3200.00	0.870	359.230	3199.79	21.48 N	9.69 W	-21.22	0.145
3300.00	0.620	348.870	3299.79	22.77 N	9.80 W	-22.14	0.283
3400.00	0.550	350.460	3399.78	23.77 N	9.98 W	-22.93	0.072
3500.00	0.550	354.880	3499.78	24.72 N	10.11 W	-23.63	0.042
3600.00	0.410	324.390	3599.77	25.49 N	10.36 W	-24.32	0.286
3700.00	0.190	20.330	3699.77	25.94 N	10.51 W	-24.72	0.342
3800.00	0.120	65.910	3799.77	26.14 N	10.35 W	-24.73	0.136
3900.00	0.070	302.320	3899.77	26.21 N	10.31 W	-24.75	0.169

Continued...

Sperry-Sun Drilling Services

Survey Report for RU 20-14

Mobil Expl. & Prod. U.S., Inc.
San Juan County

Utah
Ratherford Unit

Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
4000.00	0.190	51.540	3999.77	26.35 N	10.23 W	-24.77	0.223
4100.00	0.180	13.360	4099.77	26.60 N	10.07 W	-24.81	0.121
4200.00	0.170	16.060	4199.77	26.90 N	9.99 W	-24.94	0.013
4300.00	0.120	179.070	4299.77	26.94 N	9.95 W	-24.93	0.287
4400.00	0.110	287.990	4399.77	26.86 N	10.04 W	-24.95	0.187
4500.00	0.120	265.310	4499.77	26.88 N	10.23 W	-25.12	0.046
4600.00	0.100	257.660	4599.77	26.86 N	10.42 W	-25.25	0.025
4700.00	0.070	15.190	4699.77	26.90 N	10.49 W	-25.32	0.146
4800.00	0.150	150.950	4799.77	26.84 N	10.41 W	-25.23	0.206
4900.00	0.160	206.760	4899.77	26.60 N	10.41 W	-25.07	0.145
5000.00	0.140	229.510	4999.77	26.40 N	10.57 W	-25.06	0.062
5100.00	0.200	336.990	5099.77	26.48 N	10.73 W	-25.24	0.276
5200.00	0.060	248.560	5199.77	26.62 N	10.84 W	-25.42	0.207
5300.00	0.240	328.980	5299.77	26.78 N	11.00 W	-25.64	0.238
5400.00	0.320	339.690	5399.77	27.22 N	11.21 W	-26.08	0.095
5500.00	0.350	313.920	5499.77	27.70 N	11.52 W	-26.63	0.152
MWD Survey Leg #3							
5513.00	0.350	320.630	5512.76	27.75 N	11.58 W	-26.71	0.315
5520.00	4.200	130.000	5519.76	27.61 N	11.39 W	-26.47	64.921
5530.00	9.200	122.980	5529.69	26.93 N	10.44 W	-25.31	50.574
5540.00	14.500	120.910	5539.47	25.86 N	8.70 W	-23.28	53.162
5550.00	19.600	119.910	5549.03	24.37 N	6.17 W	-20.39	51.082
5560.00	24.700	119.310	5558.29	22.51 N	2.89 W	-16.68	51.050
5570.00	29.400	118.910	5567.19	20.30 N	1.08 E	-12.22	47.035
5580.00	34.400	118.620	5575.68	17.76 N	5.72 E	-7.04	50.023
5590.00	39.900	118.400	5583.65	14.88 N	11.02 E	-1.12	55.016
5600.00	45.900	114.000	5590.97	11.89 N	17.13 E	5.48	67.031
5610.00	49.900	115.900	5597.67	8.76 N	23.85 E	12.64	42.408
5620.00	54.300	117.900	5603.81	5.19 N	30.89 E	20.33	46.741
5630.00	59.000	121.000	5609.31	1.08 N	38.15 E	28.53	53.653
5640.00	64.500	121.700	5614.04	3.51 S	45.67 E	37.24	55.344
5650.00	70.000	121.900	5617.91	8.36 S	53.51 E	46.36	55.031
5660.00	75.500	122.400	5620.87	13.44 S	61.59 E	55.82	55.207
5692.00	89.800	134.900	5624.97	33.22 S	86.23 E	87.40	59.073
5722.00	91.800	132.700	5624.55	53.98 S	107.87 E	117.33	9.910
5754.00	88.800	131.100	5624.39	75.34 S	131.69 E	149.31	10.625
5786.00	90.100	131.700	5624.69	96.51 S	155.69 E	181.30	4.474
5818.00	91.500	132.500	5624.25	117.96 S	179.43 E	213.27	5.039
5849.00	92.200	133.100	5623.24	139.01 S	202.16 E	244.22	2.973
5881.00	91.800	133.800	5622.13	161.00 S	225.38 E	276.14	2.518
5913.00	90.800	134.100	5621.40	183.20 S	248.41 E	308.06	3.263
5945.00	91.100	134.800	5620.87	205.61 S	271.25 E	339.95	2.380

Continued...

Sperry-Sun Drilling Services

Survey Report for RU 20-14

Mobil Expl. & Prod. U.S., Inc.
San Juan County

Utah
Ratherford Unit

Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
5976.00	90.100	132.900	5620.55	227.08 S	293.61 E	370.88	6.926
6008.00	88.200	132.900	5621.02	248.86 S	317.04 E	402.84	5.937
6039.00	88.900	132.400	5621.81	269.86 S	339.84 E	433.79	2.775
6071.00	87.600	130.600	5622.78	291.05 S	363.79 E	465.76	6.936
6103.00	87.200	129.400	5624.24	311.60 S	388.28 E	497.73	3.949
6135.00	89.000	128.000	5625.30	331.59 S	413.24 E	529.70	7.125
6167.00	90.400	128.900	5625.46	351.49 S	438.30 E	561.69	5.201
6198.00	87.200	126.900	5626.11	370.53 S	462.75 E	592.66	12.172
6230.00	88.200	126.400	5627.40	389.61 S	488.40 E	624.58	3.493
6262.00	91.000	127.300	5627.62	408.80 S	514.00 E	656.52	9.191
6294.00	87.300	123.900	5628.10	427.42 S	540.01 E	688.41	15.701
6325.00	89.000	124.100	5629.10	444.75 S	565.70 E	719.23	5.522
6357.00	90.200	123.900	5629.32	462.64 S	592.22 E	751.05	3.802
6389.00	89.700	121.500	5629.35	479.93 S	619.15 E	782.79	7.661
6421.00	92.700	123.900	5628.68	497.21 S	646.07 E	814.52	12.004
6453.00	94.100	125.500	5626.78	515.39 S	672.33 E	846.32	6.637
6484.00	93.600	125.300	5624.70	533.31 S	697.54 E	877.15	1.737
6516.00	90.900	127.300	5623.44	552.24 S	723.31 E	909.06	10.497
6548.00	89.300	126.400	5623.39	571.43 S	748.91 E	941.01	5.737
6579.00	91.000	129.200	5623.30	590.42 S	773.40 E	971.98	10.566
6611.00	91.800	131.500	5622.52	611.13 S	797.78 E	1003.97	7.608
6642.00	91.800	131.300	5621.55	631.63 S	821.02 E	1034.94	0.645
6674.00	90.500	131.500	5620.91	652.78 S	845.02 E	1066.93	4.110
6705.00	84.100	128.300	5622.37	672.63 S	868.76 E	1097.87	23.074
6736.00	85.900	128.500	5625.07	691.82 S	892.96 E	1128.74	5.842
6767.00	89.100	127.600	5626.42	710.90 S	917.35 E	1159.69	10.722
6799.00	88.900	127.400	5626.98	730.38 S	942.73 E	1191.65	0.884
6830.00	85.300	125.500	5628.55	748.77 S	967.63 E	1222.55	13.127
6862.00	87.300	125.300	5630.61	767.27 S	993.66 E	1254.38	6.281
6893.00	92.400	125.500	5630.69	785.22 S	1018.92 E	1285.27	16.464
6925.00	88.300	124.500	5630.50	803.57 S	1045.12 E	1317.14	13.188
6956.00	89.200	124.300	5631.17	821.06 S	1070.70 E	1347.98	2.974
6987.00	93.300	126.700	5630.50	839.07 S	1095.92 E	1378.87	15.323
7018.00	89.000	124.800	5629.88	857.17 S	1121.07 E	1409.77	15.164
7050.00	89.000	126.400	5630.43	875.80 S	1147.08 E	1441.67	4.999
7082.00	89.800	127.800	5630.77	895.10 S	1172.60 E	1473.62	5.039
7112.00	87.900	126.200	5631.37	913.15 S	1196.56 E	1503.57	8.279
7144.00	89.600	125.700	5632.07	931.93 S	1222.45 E	1535.49	5.537
7176.00	90.500	127.600	5632.04	951.03 S	1248.13 E	1567.43	6.570
7209.00	90.500	127.600	5631.75	971.16 S	1274.27 E	1600.40	0.000

Continued...

Sperry-Sun Drilling Services

Survey Report for RU 20-14

Mobil Expl. & Prod. U.S., Inc.
San Juan County

Utah
Ratherford Unit

All data is in feet unless otherwise stated. Directions and coordinates are relative to True North.
Vertical depths are relative to Well. Northings and Eastings are relative to Well.

The Dogleg Severity is in Degrees per 100ft.
Vertical Section is from Well and calculated along an Azimuth of 130.000° (True).

Based upon Minimum Curvature type calculations, at a Measured Depth of 7209.00ft.,
The Bottom Hole Displacement is 1602.16ft., in the Direction of 127.312° (True).

DIVISION OF OIL, GAS AND MINING

ENTITY ACTION FORM - FORM 6

OPERATOR MOBIL PRODUCING TX & NM INC.

ADDRESS P. O. BOX 633

MIDLAND, TEXAS 79702

OPERATOR ACCT. NO. N 7370

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION QQ	SC	TP	RG	COUNTY	SPUD DATE	EFFECTIVE DATE
D	6280 →		43-037-15747	RATHERFORD 20-W-14		20	41S	24E	SAN JUAN	11-10-98	1-25-99
WELL 1 COMMENTS: 990226 entity already added. KDR HORIZONTAL RECOMPLETION											
WELL 2 COMMENTS:											
WELL 3 COMMENTS:											
WELL 4 COMMENTS:											
WELL 5 COMMENTS:											

RECEIVED
FEB 16 1999
DIV. OF OIL, GAS & MINING

ACTION CODES (See instructions on back of form)

A - Establish new entity for new well (single well only)
B - Add new well to existing entity (group or unit well)
C - Re-assign well from one existing entity to another existing entity
D - Re-assign well from one existing entity to a new entity
E - Other (explain in comments section)

NOTE: Use COMMENT section to explain why each Action Code was selected.

(3/89)

Signature SHIRLEY HOUCHINS

ENV & REG TECH — Title

2-05-99 — Date

Phone No. (915) 688-2585

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT - " for such proposals

SUBMIT IN TRIPLICATE

5. Lease Designation and Serial No.: 14-20-603-353
6. If Indian, Allottee or Tribe Name: NAVAJO TRIBAL
7. If Unit or CA, Agreement Designation: RATHERFORD UNIT

1. Type of Well: [ ] Oil Well [ ] Gas Well [X] Other
8. Well Name and No.: RATHERFORD 20-14
2. Name of Operator: MOBIL PRODUCING TX & NM INC.*
*MOBIL EXPLORATION & PRODUCING US INC. AS AGENT FOR MPTM
9. API Well No.: 43-037-15747
3. Address and Telephone No.: P.O. Box 633, Midland TX 79702 (915) 688-2585
10. Field and Pool, or exploratory Area: GREATER ANETH
4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
SEC. 20, T41S, R24E
660' FSL & 660' FWL
BHL-618 FNL & 442 FWL
11. County or Parish, State: SAN JUAN UT

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
[X] Notice of Intent	[ ] Abandonment	[ ] Change of Plans
[ ] Subsequent Report	[ ] Recompletion	[ ] New Construction
[ ] Final Abandonment Notice	[ ] Plugging Back	[ ] Non-Routine Fracturing
	[ ] Casing Repair	[ ] Water Shut-Off
	[ ] Altering Casing	[ ] Conversion to Injection
	[X] Other MIT CHART	[ ] Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

SEE ATTACHED CHART.

RECEIVED
MAY 14 1999
DIV. OF OIL, GAS & MINING

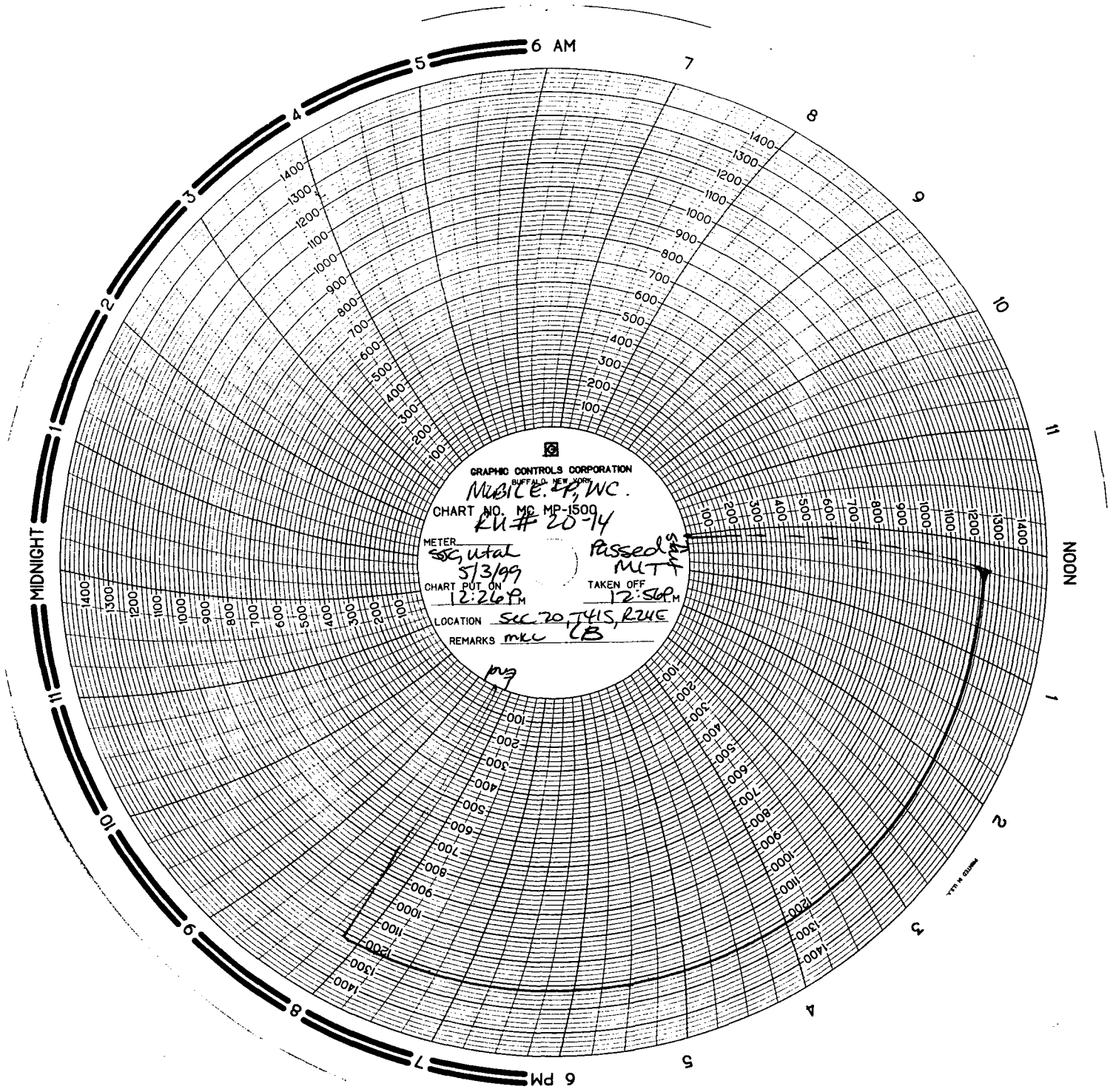
14. I hereby certify that the foregoing is true and correct
Signed Kyle Mosley for Title SHIRLEY HOUCHINS/ENV & REG TECH Date 5-12-99

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

* See Instruction on Reverse Side


6 AM
NOON
6 PM
MIDNIGHT
GRAPHIC CONTROLS CORPORATION
BUFFALO, NEW YORK
Mobile, AL, MC.
CHART NO. MC MP-1500
RU # 20-14
METER
SSC, Utah
5/3/99
CHART PUT ON
12:26 PM
TAKEN OFF
12:56 PM
LOCATION
SEC. 20, T41S, R24E
REMARKS
MKC
CB
Passed SSI
MUT

ExxonMobil Production Comp
U.S. West
P.O. Box 4358
Houston, Texas 77210-4358

June 27, 2001

ExxonMobil
Production

Mr. Jim Thompson
State of Utah, Division of Oil, Gas and Mining
1549 West North Temple
Suite 1210
Salt Lake City, UT 84114-5801

Change of Name – Mobil Oil Corporation to
ExxonMobil Oil Corporation

Dear Mr. Thompson

Effective June 1, 2001, Mobil Oil Corporation (MOC) changed its name to ExxonMobil Oil Corporation (EMOC). This was a name change only; EMOC is the same corporation as Mobil Oil Corporation, but with a new name. No facility or other asset was transferred from one corporation to another by virtue of the name change. Specifically, EMOC will remain the owner and operator of its existing exploration and production oil and gas properties and facilities, as well as relevant permits.

There is no change to the name of Exxon Mobil Corporation, the ultimate shareholder of EMOC.

Please note the change of name of MOC to ExxonMobil Oil Corporation in your records pertaining to any MOC permits.

The Federal Identification Number for MOC (13-5401570) will remain the same for EMOC.

A copy of the Certification, Bond Rider and a list of wells are attached.

If you have any questions please feel free to call Joel Talavera at 713-431-1010

Very truly yours,

Charlotte H. Harper
Permitting Supervisor

ExxonMobil Production Company
a division of Exxon Mobil Corporation,
acting for ExxonMobil Oil Corporation

United States Department of the Interior

BUREAU OF INDIAN AFFAIRS
XXXXXXXXXXXXXX
Navajo Area Office
NAVAJO REGION
P.O. Box 1060
Gallup, New Mexico 87305-1060

IN REPLY REFER TO:

RRES/543

AUG 3 0 2001

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Charlotte H. Harper, Permitting Supervisor
Exxon Mobil Production Company
U. S. West
P. O. Box 4358
Houston, TX 77210-4358

Dear Ms. Harper:

This is to acknowledge receipt of your company's name change from Mobil Oil Corporation to ExxonMobil Oil Corporation effective June 1, 2001. The receipt of documents includes the Name Change Certification, current listing of Officers and Directors, Listing of Leases, Financial Statement, filing fees of $75.00 and a copy of the Rider for Bond Number 8027 31 97. There are no other changes.

Please note that we will provide copies of these documents to other concerned parties. If you need further assistance, you may contact Ms. Bertha Spencer, Realty Specialist, at (928) 871-5938.

Sincerely,

DENNIS DENETSONE

Regional Realty Officer

cc: BLM, Farmington Field Office w/enclosures
Navajo Nation Minerals Office, Attn: Mr. Akhtar Zaman, Director/w enclosures

MINERAL RESOURCES
ADM
NATV AM MIN COORD
SOLID MIN TEAM
PETRO MGMT TEAM
O & G INSPECT TEAM
ALL TEAM LEADERS
LAND RESOURCES
ENVIRONMENT
FILES

ExxonMobil Production Company
U.S. West
P.O. Box 4358
Houston, Texas 77210-4358

PBR 7/12/2001

543

File

June 27, 2001

ExxonMobil
Production

Certified Mail
Return Receipt Requested

Ms. Genni Denetsone
United States Department of the Interior
Bureau of Indian Affairs, Navajo Region
Real Estate Services
P. O. Box 1060
Gallup, New Mexico 87305-1060
Mail Code 543

Change of Name –
Mobil Oil Corporation to
ExxonMobil Oil Corporation

Dear Ms. Denetsone:

Effective June 1, 2001, Mobil Oil Corporation (MOC) changed its name to ExxonMobil Oil Corporation (EMOC). This was a name change only; EMOC is the same corporation as Mobil Oil Corporation, but with a new name. No facility or other asset was transferred from one corporation to another by virtue of the name change. Specifically, EMOC will remain the owner and operator of its existing exploration and production oil and gas properties and facilities, as well as relevant permits.

There is no change to the name of Exxon Mobil Corporation, the ultimate shareholder of EMOC.

Please note the change of name of MOC to ExxonMobil Oil Corporation in your records pertaining to any MOC permits.

The Federal Identification Number for MOC (13-5401570) will remain the same for EMOC.

Attached is the Name Change Certification, Current listing of Officers and Directors, Filing Fee of $75/-, Listing of Leases, Financial Statement and a copy of the Rider for Bond number 8027 31 97. The original Bond Rider has been sent to Ms. Barbar Davis at your Washington Office.

If you have any questions , please contact Alex Correa at (713) 431-1012.

Very truly yours,

Charlotte H. Harper

Charlotte H. Harper
Permitting Supervisor

Attachments

ExxonMobil Production Company
a division of Exxon Mobil Corporation,
acting for ExxonMobil Oil Corporation

NOTE: Check forwarded to Ella Jossie

Bureau of Indian Affairs
Navajo Region Office
Attn: RRES - Mineral and Mining Section
P.O. Box 1060
Gallup, New Mexico 87305-1060

Gentlemen:

The current listing of officers and director of ExxonMobil Oil Corporation (Name of Corporation), of New York (State) is as follows:

OFFICERS

President	F.A. Risch	Address	5959 Las Colinas Blvd. Irving, TX 75039
Vice President	K.T. Koonce	Address	800 Bell Street Houston, TX 77002
Secretary	F.L. Reid	Address	5959 Las Colinas Blvd. Irving, TX 75039
Treasure	B.A. Maher	Address	5959 Las Colinas Blvd. Irving, TX 75039

DIRECTORS

Name	D.D. Humphreys	Address	5959 Las Colinas Blvd. Irving, TX 75039
Name	P.A. Hanson	Address	5959 Las Colinas Blvd. Irving, TX 75039
Name	T.P. Townsend	Address	5959 Las Colinas Blvd. Irving, TX 75039
Name	B.A. Maher	Address	5959 Las Colinas Blvd. Irving, TX 75039
Name	F.A. Risch	Address	5959 Las Colinas Blvd. Irving, TX 75039

Sincerely,

Alex Correa

This is to certify that the above information pertaining to ExxonMobil Oil Corporation (Corporation) is trust and correct as evidenced by the records and accounts covering business for the State of Utah and in the custody of Corporation Service Company (Agent), Phone: 1 (800) 927-9800, whose business address is One Utah Center, 201 South Main Street, Salt Lake City, Utah 84111-2218

(CORPORATE SEAL)

Signature

AGENT AND ATTORNEY IN FACT
Title

SAL

CERTIFICATION

I, the undersigned Assistant Secretary of ExxonMobil Oil Corporation. (formerly Mobil Oil Corporation), a corporation organized and existing under the laws of the State of New York, United States of America, DO HEREBY CERTIFY, That, the following is a true and exact copy of the resolutions adopted by the Board of Directors on May 22, 2001:

CHANGE OF COMPANY NAME

WHEREAS, the undersigned Directors of the Corporation deem it to be in the best interest of the Corporation to amend the Certificate of Incorporation of the Corporation to change the name and principal office of the Corporation:

NOW THEREFORE BE IT RESOLVED, That Article 1st relating to the corporate name is hereby amended to read as follows:

"1st The corporate name of said Company shall be,

ExxonMobil Oil Corporation",

FURTHER RESOLVED, That the amendment of the Corporation's Certificate of Incorporation referred to in the preceding resolutions be submitted to the sole shareholder of the Corporation entitled to vote thereon for its approval and, if such shareholder gives its written consent, pursuant to Section 803 of the Business Corporation Law of the State of New York, approving such amendment, the proper officers of the Corporation be, and they hereby are, authorized to execute in the name of the Corporation the Certificate of Amendment of Certificate of Incorporation, in the form attached hereto;

FURTHER RESOLVED, That the proper officers of the Corporation be and they hereby are authorized and directed to deliver, file and record in its behalf, the Certificate of Amendment of Certificate of Incorporation, and to take such action as may be deemed necessary or advisable to confirm and make effective in all respects the change of this Company's name to EXXONMOBIL OIL CORPORATION.

WITNESS, my hand and the seal of the Corporation at Irving, Texas, this 8th day of June, 2001.

S. A. Millican
Assistant Secretary

COUNTY OF DALLAS)
STATE OF TEXAS)
UNITED STATES OF AMERICA)
Sworn to and subscribed before me at Irving, Texas, U. S. A. on this the 8th day of June, 2001.

Janice M. Phillips
Notary Public

LISTING OF LEASES OF MOBIL OIL CORPORATION

	Lease Number
1)	14-20-0603-6504
2)	14-20-0603-6505
3)	14-20-0603-6506
4)	14-20-0603-6508
5)	14-20-0603-6509
6)	14-20-0603-6510
7)	14-20-0603-7171
8)	14-20-0603-7172A
9)	14-20-600-3530
10)	14-20-603-359
11)	14-20-603-368
12)	14-20-603-370
13)	14-20-603-370A
14)	14-20-603-372
15)	14-20-603-372A
16)	14-20-603-4495
17)	14-20-603-5447
18)	14-20-603-5448
19)	14-20-603-5449
20)	14-20-603-5450
21)	14-20-603-5451

6/1/01

CHUBB GROUP OF INSURANCE COMPANIES

[illegible] South, Suite [illegible], Houston, Texas [illegible]
[illegible] (713) 297-4600 • Facsimile: (713) 297-4750

NM Bond

FEDERAL INSURANCE COMPANY RIDER
to be attached to and form a part of

BOND NO 8027 31 97
wherein
Mobil Oil Corporation and Mobil Exploration and Producing U.S., Inc. is named as Principal and

FEDERAL INSURANCE COMPANY AS SURETY,

in favor of United States of America, Department of the Interior Bureau of Indian Affairs

in the amount of **$150,000.00**
bond date: 11/01/65

IT IS HEREBY UNDERSTOOD AND AGREED THAT effective **June 1, 2001** the name of the Principal is changed

FROM: **Mobil Oil Corporation and Mobil Exploration and Producing U.S., Inc.**

TO : **ExxonMobil Oil Corporation**

All other terms and conditions of this Bond are unchanged.

Signed, sealed and dated this **12th** of **June, 2001.**

ExxonMobil Oil Corporation

By : _____

FEDERAL INSURANCE COMPANY

By: Mary Pierson
Mary Pierson, Attorney-in-fact

Chubb Surety	POWER OF ATTORNEY	Federal Insurance Company Vigilant Insurance Company Pacific Indemnity Company	Attn.: Surety Department 15 Mountain View Road Warren, NJ 07059

Know All by These Presents, That FEDERAL INSURANCE COMPANY, an Indiana corporation, VIGILANT INSURANCE COMPANY, a New York corporation, and PACIFIC INDEMNITY COMPANY, a Wisconsin corporation, do each hereby constitute and appoint R.F. Bobo, Mary Pierson, Philana Berros, and Jody E. Specht of Houston, Texas----------

each as their true and lawful Attorney-in-Fact to execute under such designation in their names and to affix their corporate seals to and deliver for and on their behalf as surety thereon or otherwise, bonds and undertakings and other writings obligatory in the nature thereof (other than bail bonds) given or executed in the course of business, and any instruments amending or altering the same, and consents to the modification or alteration of any instrument referred to in said bonds or obligations.

In Witness Whereof, said FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY have each executed and attested these presents and affixed their corporate seals on this 10th day of May, 2001.

Kenneth C. Wendel, Assistant Secretary

Frank E. Robertson, Vice President

STATE OF NEW JERSEY }
County of Somerset } ss.

On this 10th day of May, 2001, before me, a Notary Public of New Jersey, personally came Kenneth C. Wendel, to me known to be Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY, the companies which executed the foregoing Power of Attorney, and the said Kenneth C. Wendel being by me duly sworn, did depose and say that he is Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY and knows the corporate seals thereof, that the seals affixed to the foregoing Power of Attorney are such corporate seals and were thereto affixed by authority of the By-Laws of said Companies; and that he signed said Power of Attorney as Assistant Secretary of said Companies by like authority; and that he is acquainted with Frank E. Robertson, and knows him to be Vice President of said Companies; and that the signature of Frank E. Robertson, subscribed to said Power of Attorney is in the genuine handwriting of Frank E. Robertson, and was thereto subscribed by authority of said Boards and in deponent's presence.

Karen A. Price
Notary Public State of New Jersey
No. 2231647
Commission Expires Oct. 28, 2004

Notarial Seal

Notary Public

CERTIFICATION

Extract from the By-Laws of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY:

"All powers of attorney for and on behalf of the Company may and shall be executed in the name and on behalf of the Company, either by the Chairman or the President or a Vice President or an Assistant Vice President, jointly with the Secretary or an Assistant Secretary, under their respective designations. The signature of such officers may be engraved, printed or lithographed. The signature of each of the following officers: Chairman, President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary and the seal of the Company may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such power of attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding upon the Company with respect to any bond or undertaking to which it is attached."

I, Kenneth C. Wendel, Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY (the "Companies") do hereby certify that

(i) the foregoing extract of the By-Laws of the Companies is true and correct,
(ii) the Companies are duly licensed and authorized to transact surety business in all 50 of the United States of America and the District of Columbia and are authorized by the U. S. Treasury Department; further, Federal and Vigilant are licensed in Puerto Rico and the U. S. Virgin Islands, and Federal is licensed in American Samoa, Guam, and each of the Provinces of Canada except Prince Edward Island; and
(iii) the foregoing Power of Attorney is true, correct and in full force and effect.

Given under my hand and seals of said Companies at Warren, NJ this 12th day of June, 2001.

Kenneth C. Wendel, Assistant Secretary

IN THE EVENT YOU WISH TO NOTIFY US OF A CLAIM, VERIFY THE AUTHENTICITY OF THIS BOND OR NOTIFY US OF ANY OTHER MATTER, PLEASE CONTACT US AT ADDRESS LISTED ABOVE, OR BY
Telephone (908) 903-3485 Fax (908) 903-3656 e-mail: surety@chubb.com

15-10-0225 (Ed. 4-99) CONSENT

CSC 5184334741 06/01 '01 08:46 NO.410 03/05

CSC 06/01 '01 09:06 NO.135 02/04

F010601000187

CSC 45

CERTIFICATE OF AMENDMENT

OF

CERTIFICATE OF INCORPORATION

OF

MOBIL OIL CORPORATION

(Under Section 805 of the Business Corporation Law)

Pursuant to the provisions of Section 805 of the Business Corporation Law, the undersigned President and Secretary, respectively, of Mobil Oil Corporation hereby certify:

FIRST: That the name of the corporation is MOBIL OIL CORPORATION and that said corporation was incorporated under the name of Standard Oil Company of New York.

SECOND: That the Certificate of Incorporation of the corporation was filed by the Department of State, Albany, New York, on the 10th day of August, 1882.

THIRD: That the amendments to the Certificate of Incorporation effected by this Certificate are as follows:

(a) Article 1st of the Certificate of Incorporation, relating to the corporate name, is hereby amended to read as follows:

"1st The corporate name of said Company shall be,

ExxonMobil Oil Corporation",

(b) Article 7th of the Certificate of Incorporation, relating to the office of the corporation is hereby amended to read as follows:

The office of the corporation within the State of New York is to be located in the County of Albany. The Company shall have offices at such other places as the Board of Directors may from time to time determine.

FOURTH: That the amendments to the Certificate of Incorporation were authorized by the Board of Directors followed by the holder of all outstanding shares entitled to vote on amendments to the Certificate of Incorporation by written consent of the sole shareholder dated May 22, 2001.

IN WITNESS WHEREOF, this Certificate has been signed this 22nd Day of May, 2001.

F. A. Risch, President

STATE OF TEXAS)
COUNTY OF DALLAS)

F. L. REID, being duly sworn, deposes and says that he is the Secretary of MOBIL OIL CORPORATION, the corporation mentioned and described in the foregoing instrument; that he has read and signed the same and that the statements contained therein are true.

F. L. REID, Secretary

SUBSCRIBED AND SWORN TO before me, the undersigned authority, on this the 22nd day of May, 2001.

[SEAL]

NOTARY PUBLIC, STATE OF TEXAS

JANICE M. PHILLIPS
MY COMMISSION EXPIRES
May 16, 2002

CSC 5184334741 06/01 '01 09:01 NO.411 02/02
CSC 06/01 '01 09:06 NO.155 04/04

F010601000187

CSC 45

CERTIFICATE OF AMENDMENT

OF

MOBIL OIL CORPORATION

Under Section 805 of the Business Corporation Law

SRC

100 cc

STATE OF NEW YORK
DEPARTMENT OF STATE
FILED JUN 01 2001
TAX $
BY: SRC

Filed by: EXXONMOBIL CORPORATION
(Name)

5959 Las Colinas Blvd.
(Mailing address)

Irving, TX 75039-2298
(City, State and Zip code)

Cust Ref # 165578MPT

RECEIVED
JUL 05 2001
LICENSING & ADVANCE
BUREAU OF REAL ESTATE SERVICES

010601000195

State of New York }
Department of State } *ss:*

I hereby certify that the annexed copy has been compared with the original document in the custody of the Secretary of State and that the same is a true copy of said original.

Witness my hand and seal of the Department of State on JUN 01 2001

STATE OF NEW YORK ★ DEPARTMENT OF STATE ★ EXCELSIOR

Special Deputy Secretary of State

DOS-1266 (7/00)

Division of Oil, Gas and Mining

OPERATOR CHANGE WORKSHEET

ROUTING
1. GLH
2. CDW
3. FILE

Change of Operator (Well Sold) — Designation of Agent

X Operator Name Change — Merger

The operator of the well(s) listed below has changed, effective: **06-01-2001**

FROM: (Old Operator):	**TO:** (New Operator):
MOBIL EXPLORATION & PRODUCTION	EXXONMOBIL OIL CORPORATION
Address: P O BOX DRAWER "G"	Address: U S WEST P O BOX 4358
CORTEZ, CO 81321	HOUSTON, TX 77210-4358
Phone: 1-(970)-564-5212	Phone: 1-(713)-431-1010
Account No. N7370	Account No. N1855

CA No. **Unit:** **RATHERFORD**

WELL(S)

NAME	SEC TWN RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS
RATHERFORD U 19W21	19-41S-24E	43-037-15741	6280	INDIAN	WI	A
DSRT A-26 (RATHERFORD 19W23)	19-41S-24E	43-037-15742	99990	INDIAN	WI	A
RATHERFORD U 19-32	19-41S-24E	43-037-15743	6280	INDIAN	WI	A
RATHERFORD U 19-34	19-41S-24E	43-037-15744	6280	INDIAN	WI	A
DESERT A-24 (RATHERFORD 19W41)	19-41S-24E	43-037-15745	99990	INDIAN	WI	A
DESERT A-23 (RATHERFORD 19W43)	19-41S-24E	43-037-16420	99990	INDIAN	WI	A
RATHERFORD U 20-12	20-41S-24E	43-037-15746	6280	INDIAN	WI	I
RATHERFORD U 20-14	20-41S-24E	43-037-15747	6280	INDIAN	WI	A
DESERT A-18 (RATHERFORD 20W23)	20-41S-24E	43-037-15748	99990	INDIAN	WI	A
RATHERFORD U 20-32	20-41S-24E	43-037-15749	6280	INDIAN	WI	A
RATHERFORD U 20-34	20-41S-24E	43-037-15750	6280	INDIAN	WI	A
RATHERFORD 20W41 (DESERT A-27)	20-41S-24E	43-037-15751	99990	INDIAN	WI	A
RATHERFORD 20-67	20-41S-24E	43-037-31590	6280	INDIAN	WI	A
RATHERFORD U 21-14	21-41S-24E	43-037-15753	6280	INDIAN	WI	I
RATHERFORD UNIT 21-67	21-41S-24E	43-037-31753	6280	INDIAN	WI	A
RATHERFORD UNIT 28-12	28-41S-24E	43-037-15336	6280	INDIAN	WI	A
NAVAJO A-19 (RATHERFORD 28W21)	28-41S-24E	43-037-16431	99990	INDIAN	WI	A
RATHERFORD U 29-12	29-41S-24E	43-037-15337	6280	INDIAN	WI	A
RATHERFORD U 29-32	29-41S-24E	43-037-15339	6280	INDIAN	WI	A
RATHERFORD 29W21	29-41S-24E	43-037-16432	99990	INDIAN	WI	A
NAVAJO B-5 (RATHERFORD 30W41)	30-41S-24E	43-037-15343	99990	INDIAN	WI	A
NAVAJO B-16 (RATHERFORD 30W21)	30-41S-24E	43-037-16435	99990	INDIAN	WI	I

OPERATOR CHANGES DOCUMENTATION

Enter date after each listed item is completed

1. (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 06/29/2001
2. (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 06/29/2001
3. The new company has been checked through the **Department of Commerce, Division of Corporations Database on:** 04/09/2002
4. Is the new operator registered in the State of Utah: YES Business Number: 579865-0143

5. If **NO**, the operator was contacted contacted on: N/A

6. **Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: BIA-06/01/01

7. **Federal and Indian Units:**
The BLM or BIA has approved the successor of unit operator for wells listed on: 06/01/2001

8. **Federal and Indian Communization Agreements ("CA"):**
The BLM or BIA has approved the operator for all wells listed within a CA on: N/A

9. **Underground Injection Control ("UIC")** The Division has approved UIC Form 5, **Transfer of Authority to Inject,** for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: N/A
NOTE: EPA ISSUES UIC PERMIT

DATA ENTRY:

1. Changes entered in the **Oil and Gas Database on:** 04/11/2002
2. Changes have been entered on the **Monthly Operator Change Spread Sheet on:** 04/11/2002
3. Bond information entered in RBDMS on: N/A
4. Fee wells attached to bond in RBDMS on: N/A

STATE WELL(S) BOND VERIFICATION:

1. State well(s) covered by Bond Number: N/A

FEDERAL WELL(S) BOND VERIFICATION:

1. Federal well(s) covered by Bond Number: N/A

INDIAN WELL(S) BOND VERIFICATION:

1. Indian well(s) covered by Bond Number: 80273197

FEE WELL(S) BOND VERIFICATION:

1. (R649-3-1) The **NEW** operator of any fee well(s) listed covered by Bond Number N/A

2. The **FORMER** operator has requested a release of liability from their bond on: N/A
The Division sent response by letter on: N/A

LEASE INTEREST OWNER NOTIFICATION:

3. (R649-2-10) The **FORMER** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: N/A

COMMENTS:

Division of Oil, Gas and Mining

OPERATOR CHANGE WORKSHEET

ROUTING
1. DJJ
2. CDW

X Change of Operator (Well Sold) Operator Name Change/Merger

The operator of the well(s) listed below has changed, effective: **6/1/2006**

FROM: (Old Operator):	**TO:** (New Operator):
N1855-ExxonMobil Oil Corporation	N2700-Resolute Natural Resources Company
PO Box 4358	1675 Broadway, Suite 1950
Houston, TX 77210-4358	Denver, CO 80202
Phone: 1 (281) 654-1936	Phone: 1 (303) 534-4600

CA No. **Unit:** **RATHERFORD (UIC)**

OPERATOR CHANGES DOCUMENTATION

Enter date after each listed item is completed

1. (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 4/21/2006
2. (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 4/24/2006
3. The new company was checked on the **Department of Commerce, Division of Corporations Database on:** 6/7/2006
4. Is the new operator registered in the State of Utah: YES Business Number: 5733505-0143
5. If **NO**, the operator was contacted contacted on:

6a. (R649-9-2)Waste Management Plan has been received on: requested

6b. Inspections of LA PA state/fee well sites complete on: n/a

6c. Reports current for Production/Disposition & Sundries on: ok

7. **Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: BLM n/a BIA not yet
8. **Federal and Indian Units:** The BLM or BIA has approved the successor of unit operator for wells listed on: not yet
9. **Federal and Indian Communization Agreements ("CA"):** The BLM or BIA has approved the operator for all wells listed within a CA on: n/a
10. **Underground Injection Control ("UIC")** The Division has approved UIC Form 5, **Transfer of Authority to Inject,** for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: 6/12/2006

DATA ENTRY:

1. Changes entered in the **Oil and Gas Database on:** 6/22/2006
2. Changes have been entered on the **Monthly Operator Change Spread Sheet on:** 6/22/2006
3. Bond information entered in RBDMS on: n/a
4. Fee/State wells attached to bond in RBDMS on: n/a
5. Injection Projects to new operator in RBDMS on: 6/22/2006
6. Receipt of Acceptance of Drilling Procedures for APD/New on: n/a

BOND VERIFICATION:

1. Federal well(s) covered by Bond Number: n/a
2. Indian well(s) covered by Bond Number: PA002769
3. (R649-3-1) The **NEW** operator of any fee well(s) listed covered by Bond Number n/a

a. The **FORMER** operator has requested a release of liability from their bond on: n/a
The Division sent response by letter on: n/a

LEASE INTEREST OWNER NOTIFICATION:

4. (R649-2-10) The **FORMER** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: n/a

COMMENTS:

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

UIC FORM 5

TRANSFER OF AUTHORITY TO INJECT

Well Name and Number	API Number
See attached list	Attached
Location of Well	**Field or Unit Name**
Footage : See attached list County : San Juan	Ratherford Unit
QQ, Section, Township, Range: State : UTAH	**Lease Designation and Number** See attached list

EFFECTIVE DATE OF TRANSFER: 6/1/2006

CURRENT OPERATOR

Company: Exxon Mobil Oil Corporation
Address: PO Box 4358
city Houston state TX zip 77210-4358
Phone: (281) 654-1936
Name:
Signature:
Title:
Date:
Comments: Exxon Mobil has submitted a separate, signed copy of UIC Form 5

NEW OPERATOR

Company: Resolute Natural Resources Company
Address: 1675 Broadway, Suite 1950
city Denver state CO zip 80202
Phone: (303) 534-4600
Name: Dwight E Mallory
Signature:
Title: Regulatory Coordinator
Date: 4/20/2006
Comments: A list of affected UIC wells is attached.
New bond numbers for these wells are:
BIA Bond # PA002769 and US EPA Bond # B001252

(This space for State use only)

Transfer approved by:
Title: Field Operations Manager
Approval Date: 6/12/06

Comments:

RECEIVED
APR 24 2006
DIV. OF OIL, GAS & MINING

(5/2000)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5. LEASE DESIGNATION AND SERIAL NUMBER: See attached list
6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Navajo Tribe
7. UNIT or CA AGREEMENT NAME: Ratherford Unit
8. WELL NAME and NUMBER: See attached list
9. API NUMBER: Attached
10. FIELD AND POOL, OR WILDCAT: Greater Aneth

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ OTHER Unit Agreement

2. NAME OF OPERATOR: Resolute Natural Resources Company N2700

3. ADDRESS OF OPERATOR: 1675 Broadway, Suite 1950 CITY Denver STATE CO ZIP 80202 PHONE NUMBER: (303) 534-4600

4. LOCATION OF WELL
FOOTAGES AT SURFACE: See attached list COUNTY: San Juan
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start:	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☑ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☐ PLUG AND ABANDON	☐ VENT OR FLARE
☑ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion:	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☐ OTHER:
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Effective June 1, 2006 Exxon Mobil Oil Corporation resigns as operator of the Ratherford Unit. Also effective June 1, 2006 Resolute Natural Resources Company is designated as successor operator of the Ratherford Unit.

A list of affected producing and water source wells is attached. A separate of affected injection wells is being submitted with UIC Form 5, Transfer of Authority to Inject.

As of the effective date, bond coverage for the affected wells will transfer to BIA Bond # PA002769.

NAME (PLEASE PRINT) Dwight E Mallory TITLE Regulatory Coordinator

SIGNATURE D.E. Mallory DATE 4/20/2006

(This space for State use only)

APPROVED 6/27/06
Earlene Russell
Division of Oil, Gas and Mining
Earlene Russell, Engineering Technician

RECEIVED
APR 24 2006
DIV. OF OIL, GAS & MINING

(5/2000) (See Instructions on Reverse Side)

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5. LEASE DESIGNATION AND SERIAL NUMBER:

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ship Rock

7. UNIT or CA AGREEMENT NAME: UTU68931A

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ OTHER Injection

8. WELL NAME and NUMBER: Ratherford

2. NAME OF OPERATOR: ExxonMobil Oil Corporation N1855

9. API NUMBER: attached

3. ADDRESS OF OPERATOR: P.O. Box 4358 CITY Houston STATE TX ZIP 77210-4358

PHONE NUMBER: (281) 654-1936

10. FIELD AND POOL, OR WILDCAT: Aneth

4. LOCATION OF WELL

FOOTAGES AT SURFACE:

COUNTY: San Juan

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☑ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start: 6/1/2006	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☑ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☐ PLUG AND ABANDON	☐ VENT OR FLARE
☐ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion:	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☐ OTHER:
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

ExxonMobil Oil Corporation is transferring operatorship of Greater Aneth field, Ratherford lease to Resolute Natural Resources Company. All change of operator notices should be made effective as of 7:00 AM MST on June 1, 2006.

Attached please find a listing of injection wells included in the transfer.

NAME (PLEASE PRINT) Laurie Kilbride TITLE Permitting Supervisor

SIGNATURE Laurie S. Kilbride DATE 4/19/2006

(This space for State use only) APPROVED 6/27/06

Earlene Russell

Division of Oil, Gas and Mining

Earlene Russell, Engineering Technician

(See Instructions on Reverse Side)

RECEIVED

APR 21 2006

DIV. OF OIL, GAS & MINING

(5/2000)

GREATER ANETH FIELD UIC WELL LIST
Ratherford lease, San Juan County, Utah

Reg Lease Name	Well ID	API Num	Status	Reg Lease #	Surface Location						
					Qtr 1	Qtr 2	Sec	TN	RNG	NS Foot	EW Foot
RATHERFORD UNIT	1W24	430371583900S1	Shut-in	14-20-603-246A	NE	SE	1	41S	23E	0651FSL	3300FEL
RATHERFORD UNIT	2W44	430371638600S1	Active	14-20-603-246A	SE	SE	2	41S	23E	0810FSL	0510FEL
RATHERFORD UNIT	11W42	430371584100S1	Active	14-20-603-246A	SE	NE	11	41S	23E	3290FSL	4617FWL
RATHERFORD UNIT	11W44	430371584200S1	Shut-in	14-20-603-246A	SE	SE	11	41S	23E	0660FSL	0558FEL
RATHERFORD UNIT	12W11	430371584300S1	Active	14-20-603-246A	NW	NW	12	41S	23E	0678FNL	4620FEL
RATHERFORD UNIT	12W13	430371640400S1	Active	14-20-603-246A	NW	SW	12	41S	23E	1980FSL	4620FEL
RATHERFORD UNIT	12W22	430371584501S1	Active	14-20-603-246A	SE	NW	12	41S	23E	1920FNL	2080FWL
RATHERFORD UNIT	12W24	430373115101S1	Active	14-20-603-246A	SE	SW	12	41S	23E	0775FSL	1980FWL
RATHERFORD UNIT	12W31	430371584700S1	Active	14-20-603-246A	NW	NE	12	41S	23E	0661FNL	1981FEL
RATHERFORD UNIT	12W33	430371584800S1	Active	14-20-603-246A	NW	SE	12	41S	23E	1958FSL	3300FEL
RATHERFORD UNIT	12W42	430371585000S1	Active	14-20-603-246A	SE	NE	12	41S	23E	3275FSL	0662FEL
RATHERFORD UNIT	12W44A	430373154300S1	Shut-in	14-20-603-246A	SE	SE	12	41S	23E	0772FSL	0807FEL
RATHERFORD UNIT	13W11	430373115201S1	Active	14-20-603-247A	NW	NW	13	41S	23E	0500FNL	0660FWL
RATHERFORD UNIT	13W13	430371585100S1	Active	14-20-603-247A	NW	SW	13	41S	23E	1980FSL	4620FEL
RATHERFORD UNIT	13W22	430371585200S1	Active	14-20-603-247A	SE	NW	13	41S	23E	1988FNL	3300FEL
RATHERFORD UNIT	13W24	430371585300S1	Active	14-20-603-247A	SE	SW	13	41S	23E	0660FSL	3300FEL
RATHERFORD UNIT	13W33	430371585501S1	Active	14-20-603-247A	NW	SE	13	41S	23E	1970FSL	1979FEL
RATHERFORD UNIT	13W42	430371585700S1	Shut-in	14-20-603-247A	SE	NE	13	41S	23E	2139FNL	0585FEL
RATHERFORD UNIT	13W44	430371640700S1	Active	14-20-603-247A	SE	SE	13	41S	23E	0653FSL	0659FEL
RATHERFORD UNIT	14-31	430373171700S1	Active	14-20-603-247A	NW	NE	14	41S	23E	0754FNL	1604FEL
RATHERFORD UNIT	14W42	430371586001S1	Active	14-20-603-247A	SE	NE	14	41S	23E	1976FNL	653FEL
RATHERFORD UNIT	24W31	430371586200S1	Shut-in	14-20-603-247A	NW	NE	24	41S	24E	0560FNL	1830FEL
RATHERFORD UNIT	24W42	430371586300S1	Shut-in	14-20-603-247A	SE	NE	24	41S	24E	1980FNL	0660FEL
RATHERFORD UNIT	17W12	430371572601S1	Active	14-20-603-353	SW	NW	17	41S	24E	1980FNL	510FWL
RATHERFORD UNIT	17W14	430371572700S1	Active	14-20-603-353	SW	SW	17	41S	24E	0610FSL	0510FWL
RATHERFORD UNIT	17W21	430371641601S1	Active	14-20-603-353	NE	NW	17	41S	24E	0510FNL	1830FWL
RATHERFORD UNIT	17W23	430371572801S1	Active	14-20-603-353	NE	SW	17	41S	24E	1880FSL	1980FWL
RATHERFORD UNIT	17W32	430371572900S1	TA'd	14-20-603-353	SW	NE	17	41S	24E	1830FNL	2030FEL
RATHERFORD UNIT	17W34	430371573000S1	Active	14-20-603-353	SW	SE	17	41S	24E	0560FSL	1880FEL
RATHERFORD UNIT	17W41	430371573100S1	Shut-in	14-20-603-353	NE	NE	17	41S	24E	0610FNL	0510FEL
RATHERFORD UNIT	17W43	430371641701S1	Active	14-20-603-353	NE	SE	17	41S	24E	1980FSL	0660FEL
RATHERFORD UNIT	18-43B	430373171801S1	Active	14-20-603-353	NE	SE	18	41S	24E	2023FSL	0651FEL
RATHERFORD UNIT	18W12	430373115301S1	Active	14-20-603-353	SW	NW	18	41S	24E	1980FNL	560FWL
RATHERFORD UNIT	18W14	430371573501S1	Active	14-20-603-353	SW	SW	18	41S	24E	0810FSL	0600FWL
RATHERFORD UNIT	18W21	430371641801S1	Active	14-20-603-353	NE	NW	18	41S	24E	660FNL	1882FWL
RATHERFORD UNIT	18W23	430373024400S1	Shut-in	14-20-603-353	NE	SW	18	41S	24E	2385FSL	2040FWL
RATHERFORD UNIT	18W32	430371573601S1	Active	14-20-603-353	SW	NE	18	41S	24E	2140FNL	1830FEL
RATHERFORD UNIT	18W34	430371573701S1	Active	14-20-603-353	SW	SE	18	41S	24E	780FSL	1860FEL
RATHERFORD UNIT	18W41	430371573800S1	TA'd	14-20-603-353	NE	NE	18	41S	24E	0660FNL	0660FEL
RATHERFORD UNIT	19-12	430371573901S1	Active	14-20-603-353	SW	NW	19	41S	24E	1980FNL	0600FWL
RATHERFORD UNIT	19-32	430371574301S1	Active	14-20-603-353	SW	NE	19	41S	24E	2717FNL	2802FEL
RATHERFORD UNIT	19-34	430371574401S1	Active	14-20-603-353	SW	SE	19	41S	24E	0660FSL	1980FEL
RATHERFORD UNIT	19W21	430371574100S1	Shut-in	14-20-603-353	NE	NW	19	41S	24E	0660FNL	1860FWL
RATHERFORD UNIT	19W23	430371574200S1	Shut-in	14-20-603-353	NE	SW	19	41S	24E	2080FSL	1860FWL
RATHERFORD UNIT	19W43	430371642000S1	Shut-in	14-20-603-353	NE	SE	19	41S	24E	1980FSL	0760FEL
RATHERFORD UNIT	20-12	430371574601S1	Active	14-20-603-353	SW	NW	20	41S	24E	0709FNL	0748FEL
RATHERFORD UNIT	20-14	430371574701S1	Active	14-20-603-353	SW	SW	20	41S	24E	0660FSL	0660FWL
RATHERFORD UNIT	20-32	430371574901S1	Active	14-20-603-353	SW	NE	20	41S	24E	0037FNL	0035FWL
RATHERFORD UNIT	20-34	430371575001S1	Active	14-20-603-353	SW	SE	20	41S	24E	0774FNL	0617FWL
RATHERFORD UNIT	20-67	430373159000S1	Active	14-20-603-353	NE	SW	20	41S	24E	2629FSL	1412FWL
RATHERFORD UNIT	20W21	430371642300S1	Active	14-20-603-353	NE	NW	20	41S	24E	0660FNL	1880FWL
RATHERFORD UNIT	20W23	430371574800S1	Active	14-20-603-353	NW	SW	20	41S	24E	2080FSL	2120FWL
RATHERFORD UNIT	20W41	430371575100S1	Active	14-20-603-353	NE	NE	20	41S	24E	0660FNL	0660FEL
RATHERFORD UNIT	20W43	430371642400S1	TA'd	14-20-603-353	NE	SE	20	41S	24E	2070FSL	0810FEL
RATHERFORD UNIT	16W12	430371572000S1	Active	14-20-603-355	SW	NW	16	41S	24E	1880FNL	0660FWL

GREATER ANETH FIELD UIC WELL LIST
Ratherford lease, San Juan County, Utah

Reg Lease Name	Well ID	API Num	Status	Reg Lease #	Surface Location						
					Qtr 1	Qtr 2	Sec	TN	RNG	NS Foot	EW Foot
RATHERFORD UNIT	16W14	430371572100S1	Shut-in	14-20-603-355	SW	SW	16	41S	24E	0660FSL	0660FWL
RATHERFORD UNIT	16W21	430371641400S1	Active	14-20-603-355	NE	NW	16	41S	24E	0660FNL	1880FWL
RATHERFORD UNIT	16W23	430371572201S1	Active	14-20-603-355	NE	SW	16	41S	24E	1980FSL	1980FWL
RATHERFORD UNIT	16W43	430371641501S1	Active	14-20-603-355	NE	SE	16	41S	24E	2140FSL	0820FEL
RATHERFORD UNIT	21-14	430371575301S1	Active	14-20-603-355	SW	SW	21	41S	24E	0660FSL	0460FWL
RATHERFORD UNIT	21-67	430373175301S1	Active	14-20-603-355	NE	SW	21	41S	24E	2560FSL	1325FWL
RATHERFORD UNIT	21W21	430371642501S1	Active	14-20-603-355	NE	NW	21	41S	24E	0660FNL	2030FWL
RATHERFORD UNIT	**6W14**	430371598400S1	Active	14-20-603-368	NE	SE	6	41S	24E	0660FSL	0660FWL
RATHERFORD UNIT	7W12	430371598500S1	Active	14-20-603-368	NE	SE	7	41S	24E	2140FNL	0585FWL
RATHERFORD UNIT	7W14	430371598600S1	Active	14-20-603-368	NE	SE	7	41S	24E	1065FSL	0660FWL
RATHERFORD UNIT	7W21	430371639400S1	Active	14-20-603-368	NE	NW	7	41S	24E	0710FNL	1820FWL
RATHERFORD UNIT	7W34	430371598900S1	Active	14-20-603-368	SW	SE	7	41S	24E	0710FSL	2003FEL
RATHERFORD UNIT	7W43	430371639500S1	Active	14-20-603-368	NE	SE	7	41S	24E	2110FSL	0660FEL
RATHERFORD UNIT	**8W14**	430371599200S1	Active	14-20-603-368	SW	NE	8	41S	24E	0745FSL	0575FWL
RATHERFORD UNIT	10W43	430371640300S1	TA'd	14-20-603-4037	NE	SE	10	41S	24E	1980FSL	0550FEL
RATHERFORD UNIT	29-12	430371533701S1	Active	14-20-603-407	SW	**NW**	29	41S	24E	2870FNL	1422FWL
RATHERFORD UNIT	29-32	430371533901S1	Active	14-20-603-407	SW	NE	29	41S	24E	0694FNL	0685FWL
RATHERFORD UNIT	29W21	430371643200S1	Active	14-20-603-407	NE	NW	29	41S	24E	0667FNL	2122FWL
RATHERFORD UNIT	29W41	430371643300S1	Active	14-20-603-407	NE	NE	29	41S	24E	0557FNL	0591FEL
RATHERFORD UNIT	29W43	430371643400S1	Shut-in	14-20-603-407	NE	SE	29	41S	24E	1980FSL	0660FEL
RATHERFORD UNIT	30W41	430371534300S1	Shut-in	14-20-603-407	NE	NE	30	41S	24E	0660FNL	0660FEL
RATHERFORD UNIT	28-12	430371533601S1	Active	14-20-603-409	SW	SE	28	41S	24E	2121FNL	0623FWL
RATHERFORD UNIT	28W21	430371643100S1	Shut-in	14-20-603-409	NE	NW	28	41S	24E	0660FNL	2022FWL
RATHERFORD UNIT	9W23	430371639800S1	Active	14-20-603-5046	NW	SE	9	41S	24E	1980FSL	1980FWL